

THE EASTERN ANTHROPOLOGIST

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WINTER ISSUE

<i>Notes and Comments</i>	1
<i>A Note on Village as Unit or Variable for Studies of Rural Society</i> RAMKRISHNA MUKHERJEE	3
<i>Some Preliminary Observations concerning the Anthropology of Industrialization</i> HAROLD A. GOULD	30
<i>Possible Origin of the Bhunjias and their Ethnic Relationship : A new Hypothesis</i> K. C. DUBEY	48
<i>A Tentative Theoretical Approach to the Study of Minorities in India</i> R. A. SCHERMERHORN	59
<i>A Radiographic Study of the Ossification Centers in the Foot of New-born Infants of M. P.</i> K. N. BHARGAVA AND T. C. GARG	70
<i>A Statistical Survey of Indian Cranial Indices</i> K. B. SINGH	78
<i>The Pandit and Mohammedan of Kashmir : An Anthropometric Study</i> T. C. RAYCHOU DHURY	84
<i>Book Reviews</i>	94

INFORMATION FOR CONTRIBUTORS

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Articles, brief communications and reviews should be sent to :

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Manuscripts must be typed (double space) on one side of sheet only, preferably on quarto paper. Footnotes should be given at the end of the paper and numbered consecutively throughout the paper. References to literature should be carried within the text stating author's last name, year of publication and page, e.g., (Majumdar 1950 : 125). The author's name should not be included if it already occurs in the text, e.g., (1950 : 125). Bibliography should be listed alphabetically by author and chronologically for each author. Book review headings should be prepared as follows : Title (in capitals), author's name, place of publication, publisher's name, year of publication, number of pages and price. Current issues may be referred to for details.

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NOTES AND COMMENTS

With this issue *The Eastern Anthropologist* enters its fourteenth year. The previous thirteen years have been those of hard and consistent endeavour and many have been the occasions when the journal has had to face crises, financial and other. However, the burden of keeping the journal alive was borne manfully by its founder-editor, the late Professor D. N. Majumdar, on his broad shoulders. At the time of his sudden death in May 1960, *The Eastern Anthropologist* had overcome most of its teething troubles and had established itself as a learned journal of international circulation. That in itself is a great tribute to the late Professor Majumdar.

Three factors, viz. its able management and editing by the late Prof. Majumdar, the co-operation of contributors, and the encouraging response of readers and subscribers, have given *The Eastern Anthropologist* its present position in terms of circulation and prestige.

It shall be our endeavour to maintain the high standards set by the late Professor Majumdar. We will also make changes whenever doing so seems desirable and in the interests of the journal. We will be guided in our efforts by the supreme consideration of improving the quality of *The Eastern Anthropologist*. We also hope to increase our circulation through such efforts.

It is our earnest hope that contributors, subscribers and readers will continue to give us their encouragement and support.

* * * * *

In the past *The Eastern Anthropologist* has been described as a 'Quarterly' but it has not been always possible to bring it out four times a year. We have therefore decided to issue only three numbers each year: there will be a Winter Issue (January-April), a Summer Issue (May-August) and an Autumn Issue (September-December). However, the number of pages per Volume will not be reduced.

Another change proposed to be introduced is that every contribution will be fully signed and the contributor's 'institutional affi-

liation' or place of work and residence mentioned.

* * * * *

Finally, it gives me pleasure to announce that Professor David G. Mandelbaum has consented to be our Foreign Editor in America. Professor C. von Furer-Haimendorf who has been associated with *The Eastern Anthropologist* since its very beginning continues to be our Foreign Editor in the U.K.

A NOTE ON VILLAGE AS UNIT OR VARIABLE FOR STUDIES OF RURAL SOCIETY¹

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1. When we talk of studies of "villages" or of "village communities" instead of a study of rural society, we cannot but presuppose that the villages are vested with one or both of the following qualities. Namely, they are *isolates* in the organization of the society in the sense that they represent mutually distinct societal attributes and/or in the synthesized existence of rural society they indicate such a distinct level of integration in the life and living of the people concerned as deserves a fundamental discrimination when planning a study of rural society. Either way, the conception is there of the village as *unit* in rural society; the unit being defined as: "Individual thing or person or group regarded for purposes of calculation &c. as single & complete, each of the individuals or groups into which a complex whole may be analysed" (*Oxford Concise Dictionary*).

2. It may be argued that for studying any societal phenomenon or a number of them, a unit may not be so exactly "complete" as the Dictionary defines, and thus a constant. Because such a level of accuracy has not been attained in our disciplines; may be it will never be achieved. Even so, if we are to appreciate the forces at work in society, we cannot ignore the pre-condition to any study in variation, namely, the concept of unit, in order to discriminate the character and to measure the degree and order of variation in the *field*. A unit for our purpose may, therefore, be defined as one which with respect to the phenomenon or phenomena under investigation is: (a) homogeneous internally, if not a constant; (b) distinguished from its corresponding numbers within the field of variation by heterogeneity in-between; and (c) possesses a societal character for its identification and understanding in the course of life and living in a society.

3. Do the villages thus conform to the conception of unit for our studies, either by their uniqueness in the societal organization or by their mutually distinguished feature of integration in the life and living of their residents?

4. The uniqueness of the villages in the social organization is substantiated insofar as they represent mutually distinct characteristics with respect to the phenomenon or phenomena under examination. Such as, with reference to the economic organization of a society, there can be an agricultural village as distinct from a mining village; a village of weavers, another of agricultural labourers, and still another of miners; a village of which the location of work of its residents is in the village itself, and another with its residents all working in the neighbouring town or industrial settlement; and so on. Similarly, with respect to the community-religious-caste grouping of a society, there may

be a Hindu village, a Muslim village, a tribal village ; or a village of such Hindus only who are untouchables, another of such Muslims only who have a specific traditional occupation, as for example, the Jolahas.

5. If the villages in a society would show such unit-characteristics with respect to the phenomenon or phenomena under examination, we could surely orient our study of the society in terms of "villages". But it is well known that in many respects and in several vital respects at that, the social organization of the people cut across the village boundaries ; for the bulk of the people in the society at any rate. Such as, in the economic and political organization of the society, in religious and caste bonds of the people, in their kinship integration, etc. From this aspect, therefore, the usefulness of "village studies" has been lost to the general run of social scientists.

6. Instead, a fair share of them is now prone to advocate the recommendation made by Dube for "a series of studies of village communities from different parts of the country covering the many divergent patterns of organization and ethos" (Dube, 1955, pp. 6-7). Their use of the compound word "village communities", rather current these days, tends to suggest that they consider the other condition of village to conform to the concept of unit as generally or universally applicable. Namely, to quote Dube again : "As a territorial, as well as social, economic and ritual unit, the village is a separate and distinct entity" (*ibid.*, p. 7). This, however, is still a debatable point.

7. That the rural people may show village-wise integration in some aspects of their feelings and actions is not doubted, although their corporate life in terms of village-wise demarcation may not be so universal as may be assumed. In any case, the few selective studies which have so far been made out of some 558 thousand villages in India do not warrant that assumption as proved conclusively. On the other hand, most of these studies have pointed out several such levels of integration, inter- or intra-village, in the social, economic and ritual aspects of rural life as are either more frequent than the respective village-level integrations (if present at all) or are admittedly more important in understanding the way of life of the rural people, or may even discard the need for village-wise demarcation in order to appreciate the dynamics of rural society. And this is so in a country where until the British rule was securely established, village communities had functioned as independent cells of society over almost the entire sub-continent and upheld a social system whose basis has been lost since then.

8. If we, therefore, orient our study of rural society to studies of "village communities" on the general assumption or the sole indication that village-wise integrations exist in rural society, we may as well orient our studies towards any one of other levels of integration only, as determined territorially (such as the neighbourhood), ecologically, or in other respects of societal organization. Evidently, what is needed at this stage of our knowledge, before orienting our study of rural society to any one of its levels

of integration (if we have to do so), is an analysis of the *relative order of importance* of the different levels, village-wise as well as intra- and inter-village-wise. I am inclined to the view, therefore, that instead of accepting *ipso facto* the unit-characteristic of villages from this functional aspect of being "a culture-bearing unit" (Dube, 1958, p. 3), and thereby labelling our studies of rural society as "studies of village communities", we should, at first, examine the justification of such an orientation from a village-wise classification of the collected data along with other societal classifications.

9. The point I am making may have also a bearing upon the Governmental programme entitled community development and co-operation. For in rural areas this programme is planned to be implemented in terms of "village communities" as functional units and not merely by considering the villages as administrative and/or operational entities. There is, therefore, all the more reason why we should ascertain the unit-characteristics of villages, structurally and/or functionally.

10. How should we, then, plan our studies of rural society in relation to the hypothetical, substantiated and exploratory usefulness of village-demarcations of the field? The substantiated usefulness of village in this regard is essentially operational. By taking account of the rural people as distinguished from the town or city population, the villages are easily identifiable because of their territorial, administrative and revenue-purpose demarcations. Therefore, from the operational point of view, they have a reasonable claim to be the focal points of rural studies, unless the societal *variates* (random variables) under examination can be located directly within the field, such as the household, family, or any other intra-village grouping and individual. This is possible in some countries where the necessary information are available in the Government or Public departments. In our country, a primary operation is needed in this respect, in the form of a listing in the field of the desired minimal societal group or individuals under certain relevant attributes. Yet it may be profitable to ascertain whether or not the necessary information can be obtained without an undue weightage on the time and cost functions of the study, and whether or not such a procedure to by-pass the village as the focal point of our investigation will have a beneficial effect on our objective.

11. The second point of investigation I have noted above leads us to the cardinal aspect of the usefulness of "village" to our studies; one that is intrinsic to the scope of social research. For, if, as I consider, the terms of social research are to examine the "social" relationships among the members of a society and investigate therefrom the causality in the life and living of the people concerned, any classificatory category of the society as a field of variation is useful which possesses a social meaning and functional independence relevant to the societal characteristics under examination. In order, therefore, to explore this usefulness of village before we come to a decision on its unit-characteristic-structurally and/or functionally, I think that at this stage of our

knowledge we should consider the village as a *variable* in the field of societal variation ; a variable as different from a variate in the sense that it is "a varying quantity where the nature of the variation is unspecified" (Kendal and Bukland, 1957, p. viii).

12. Now, village as a variable can be examined either directly by taking note of the village-wise demarcation of the field right from the stage of planning a study of rural society or indirectly by making such a demarcation as a classificatory item of the field data at the stage of analysis. For the former, a consideration of the villages separate blocks and an investigation into them *en bloc* appear as two essential conditions. Whereas the latter procedure can be applied even by ignoring the village boundaries altogether when planning a study or by making sample studies of sampled villages ; the second or any later stage sample being a relevant intra-village grouping. That is, the second procedure may or may not consider the villages as separate blocks at the planning stage, and in either case does not involve a study of the villages in their entirety. Both the variants of this procedure, however, may appear as basically unsound for anthropological studies.

13. Arguments are likely that we shall then forego study *in depth*, which is our special qualification ; and that the knowledge we relinquish by restricting the coverage of the field is amply compensated by the knowledge we acquire by such studies. But this formulation, again, is open to question. For studies have scarcely been planned (in India, in any case) to examine the relative merits of the two procedures.

14. No doubt, we may miss by this procedure some such facets of intra-village integrations as are concentrated in so few minimal groupings as may not be brought out in a sample analysis. Also there may be minute characteristics of village life which we may pass over by this method of study. But there is the point that, in any case, we cannot study all that is happening in a village even when we undertake a study in depth. In fact, we take note of such features in village life as are of *significant* importance, objectively determined or subjectively assumed. So one may reasonably argue back that, if they are of any appreciable order, the village-level integrations can be ascertained from an examination of a representative sample of intra-village groupings or individuals instead of studying the villages as a whole or even by ignoring the village boundaries. And if any such method can be adopted, we may be able to have better understanding of the rural society in question by covering the people over a much wider field than are restricted within one or a few villages, and, simultaneously, we may be able to examine more precisely the relative order of importance of the village-level integrations to the intra-village and inter-village levels of integrations.

15. These two points I shall endeavour to illustrate in the following pages. Here, however, I should note that for reasons stated above this procedure may somewhat underestimate the intra-village level of integrations but not the other two levels. Therefore, the objective of our study will not suffer in any way, as thereby

the village-level or the inter-village of integration, or both of them, may be relatively magnified but not undermined.

16. To be sure, studies in depth in a village or in any small area (a "neighbourhood" for instance) will have their own usefulness, as had the "type" studies of villages in the past or may still have in a structurally and functionally homogeneous area. Moreover, besides improving and enlarging upon our concepts and methods for research in rural society, such explorative studies are also necessary to enumerate and evolve what we should look for in the field for the so-called "extensive" analysis. But equally important is the point that if we limit ourselves to the scope of explorative study of some villages or small areas only, we shall either be unable to generalize from our studies for the field of variation, and thus fail in one of our pertinent and major tasks as social scientists, or by missing the wood for the trees we may generalize wrongly, which is worse. I feel, therefore, that any attempt to acclaim or declaim unilaterally the merits of the so-called "extensive" or "intensive" study of rural society and fix the label of our study accordingly, will lead us nowhere. What is required instead is to investigate how the rural studies should be planned with respect to various societal phenomena and in terms of the village as a variable in the field of variation, while keeping in view the complimentary character of "intensive" studies of small areas or societal groups to such "extensive" studies.

17. This problem, which I hope I have been able to enunciate as not of rarified academic interest or of mere methodological considerations but as *sui generis* to our terms of research, has been taken up in the Indian Statistical Institute as a part of the programme of the Sociological Research Unit. It cannot, however, be solved by us alone. Collaboration in every respect, in extending the area of research as well as in its formulation, is vital to the attainment of our objective. I have, therefore, ventured to place this note before the Convention.

18. To give, now, a brief account of what we intend to do and what we are doing at the moment, with respect to several societal phenomena we contemplate to study this problem as a bye-product of our forthcoming investigation into the changes in family structures in rural and urban areas of West Bengal. For this investigation, we have divided West Bengal into 24 ecological x district strata, and from each one of them we have selected two villages for study by giving equal probability to all the villages falling within a stratum to occur in our sample list. These 48 villages will be surveyed completely by a team of anthropologists, and during the three phases of investigation lasting over two years they will be subjected to detailed examinations in relation to the topic for research. From the data thus collected we may be able to analyse the relative order of importance of the village-level integration to the intra-village and inter-village levels of integration with respect to various societal phenomena forming components of our study.

19. We are also studying this problem directly in another region, but so far we have hardly scratched its surface. With respect

to a few societal factors and attributes we have examined the question of village as unit from the structural aspect, and without as yet going into its unit-characteristic from the functional aspect we are examining it as a variable with reference to three questions posed as follows : (1) Should we undertake complete investigations into "a series of village communities", or (2) should we examine a sample of one more intra-village groupings within each of a number of sampled villages, or (3) should we directly go in for an investigation of one or more minimal groups in the field by totally neglecting the village boundaries when planning our studies of rural society? I should further state that we have not found definite answers to these three questions. Still I am placing the following data before the Convention, for the points of information we have elicited may stimulate a discussion on the problem.

20. The region we have selected is in Bihar, surrounding the town of Giridih which is at present a sub-divisional town under the district of Hazaribagh but which will soon become a district town. There we have already made a preliminary survey of all 439 inhabited villages falling within the circle of 10-mile radius with the Giridih town as its centre. We propose to cover all the villages falling within a 20-mile radius because from our reconnaissance we have gathered that almost all of these villages could be influenced by the Giridih town only. Beyond that limit, the villages will be nearer to other towns in this and neighbouring districts. To date, the surveyed data for the inner circle of 5-mile radius only have been analysed, comprising 16 uninhabited and 120 inhabited villages by about 65 thousand persons who have formed 12,736 households in terms of co-residence and commensality and in the overwhelming majority of cases constitute only one kingroup (or family) in each household affiliated to one religion and caste.

21. In this note, I shall be concerned with only two aspects of the life of these people, and those two also I shall characterize with a few attributes. One of the aspects, viz. the voluntary grouping of the people in their economic organization, will be treated under (1) source of livelihood or the "industry" from which they make their living, (2) the actual occupations they perform with reference to these "industries", and (3) the place they go to for their work and earnings. The other aspect relating to the involuntary grouping of the people in their social organization will deal with (1) their affiliation to community-religious groups as Hindus, Muslims, Christians, and "tribals", and (2) their respective positions within the Hindu or the Muslim community. For want of time, I shall not, further, examine any inter-relation between these two aspects of the life of the rural folks, and treat them separately. But I shall consider three factors with reference to these two aspects of the life and living because they appear to me as relevant to the present discussion. These are: (1) the all-weather road distance of the villages from the nearest town, viz. Giridih, (2) the same from the nearest bus route, and (3) the "size" of the villages as measured by the number of households they contain.

22. In order to clarify the rationale behind the above selection and arrangement of data for the present examination as well

as behind the classification of the households formed by these people and therefrom, or directly, of the villages according to the above features, I should, to begin with, give a brief outline of the societal background of the area. I may be allowed to say with reasonable justification that this region has been put on the map of what is loosely described as "civilized India" within about last hundred years. Previously, it was primarily a forest area with a scatter of agricultural activities. Predominantly a "tribal" region, it was being slowly but steadily encroached upon in the earlier century or two by the Hindu and Muslim peasants from the outlying areas. They influenced the local population, leading eventually some of the groups at least to inclusion in either of the two communities, mainly of the Hindus. The process of change, both from external contact as well as from internal differentiations and absorption, gathered in momentum since coal-mining at Giridih proper and in the neighbourhood raised the place in importance in the last half of the nineteenth century, particularly in its last quarter. In the first half of the present century, mica-manufacture and mica-trade, with their centre in Giridih town, replaced the importance of coal-mining to the economic life of the people and is still dominating the scene. Concurrently, more and more people from outlying areas of the district, from other districts of Bihar, as well as from other States of India, have settled nearer and nearer to the town of Giridih; those from other States of India mainly in the town itself. Villages have been formed or people have settled in existing villages with or without the autochthonous people, and they have multiplied; the "size" of the inhabited villages now varying from 1 to 742 within the 5-mile circle. And, in recent years, buses are plying along several roads in the area, thus bringing the rural life closer to Giridih and other neighbouring towns and trading centres. To an appreciable extent they have replaced the role of the railways which passing through the east-northeastern sector of the circle form a link between Giridih and Madhupur on the main line of the Eastern Railways (previously the East Indian Railways) for more than half a century.

23. Against this background, I may be considered justified in taking note of the three important factors in their life and living, as I have enumerated above. Of them, the road distances will be categorized as of: (1) 0.00-2.00 miles, which can easily allow the people to maintain daily contact with the reference points: (2) 2.01-5.00 miles, which will allow the people to maintain regular, if not daily, contact with the reference points: and (3) 5.01-10.00 miles, the maximum road distance found within the circle, which may forbid regular contact of the people with the reference points. The village "size" will be considered as of: (1) 1-25 households, (2) 26-50 households, (3) 51-100 households, (4) 101-300 households, and (5) 301-742 households, in order that the villages may be categorized as very small, small, medium, large and very large with respect to the field concerned.

24. Also the following classification of the people, household or village-wise, according to the features of their economic and social organization described before, may be found relevant and

useful. In their economic organization, the industrial affiliations of the people have been categorized as : (1) mica, (2) coal, (3) agriculture, and (4) others ; their occupations as : (1) non-manual and (2) manual, and further graded within the non-manual category as high, middle or low according to the assumed order of mental faculty needed to perform the respective occupations, and within the manual category as skilled and semi- or unskilled ; and their place of work has been categorized as : (1) within the village itself, (2) in other villages, and (3) in Giridih town.

25. According to their community-religious-caste grouping, the Hindus have been classified in two ways ; one independent from the other. One of these groupings is to rank the Hindu castes under three grades according as following the local customs the Brahmins (1) do not take water from some castes (low grade), (2) do take water but do not consider them as of equal or allied rank (middle grade), and (3) do take water and consider them as of equal or allied rank (high grade). The other grouping is to classify the castes according to what their members in the area consider as their traditional professions within the Hindu community, which however they may not be professing now or for a long time since. Categories of this grouping are : (1) priesthood, teaching, etc., of the Brahmins, (2) defence, administrative duties, revenue-collection, etc. of the Rajputs, Kayasths, Ghatwars, etc., (3) trade, (4) craft-production, (5) agriculture, and (6) menial service for the community or individuals.* Like thus categorizing the people according to their respective positions within the Hindu community, the Muslim community has been categorized as comprising : (1) non-functional Muslims and (2) functional Muslims ; the functionals professing some traditional occupations (presently followed or not) unlike the former, such as weaving, cotton-carding, distilling spirits, etc., and being considered lower in esteem by the non-functionals.

26. Now, if we classify the villages according to the affiliation of their inhabitants to the respective categories of "industry", "occupation", or "place of work", we find that nearly all village types theoretically possible according to the combinations of the industry, occupation, or place of work categories are represented in the area (Table 1, columns 1-2). And we see at the same time that in consideration of their numbers and the number of households they contain as compared with the total number of households in the area under respective categories (Table 1, columns 1-4), a search for "typical" mica|coal|agricultural villages, non-manual|manual villages (separately or not by their grades), or villages distinctly separated by their place of work as in the resident village|other villages|Giridih town would yield virtually or absolutely nothing. In fact, there is only 1 "typical" village, strictly speaking. It contains only 1 household under "agriculture" as industry, "skilled manual" as occupation, and "resident village only" as place of work. Evidently, the village "units", demarcated as above, may be examined for themselves, but not for

* This classification has not been made use of for this note.

any generalization on the life and living of the people in the entire field.

27. On the other hand, the heavy concentration of such villages as are characterized by all the 4 "industry" categories, by both non-manual and manual occupations as well as by various grades of these two types of occupation (not shown in the table), or by all the 3 categories of "place of work" (Table 1, column 2) tends to suggest that these are "typical" or "representative" of the area. This is also found to be true in the sense that the 96 villages with all the 4 "industry" categories, the 98 villages with both non-manual and manual occupations, and the 102 villages with all the 3 places of work give such proportionate distributions of their total households under the respective categories (except for "agriculture") as are likely to be different from the corresponding distributions for all the 120 villages in the area due to random fluctuations only (Table 2). Furthermore, 82 (68.3%) of the total villages comprising 11,891 (93.4%) of the total households in the area (that is, including even those households which have no source of livelihood other than savings or charity) are found to have all the 4 industry categories, both non-manual and manual occupations, and all the 3 places of work. Or, 64, (53.3%) of the total villages comprising 10,458 (82.1%) of the total households in the area have all the 4 industry categories, all the 5 grades of occupation, and all the 3 places of work. Thus, owing to the fact that the economic activities of the people have been greatly diversified in the area, while the village cannot be a structural unit, it is the circle as a whole which may be so treated; or, possibly, a larger area in which the societal feature under examination is found to have extended in the same manner, and which as distinguished from the neighbouring regions in this respect may have a social meaning.

28. Although from the structural aspect the village should not thus be considered as a societal unit in the field under examination, it may or may not functionally represent the unit-characteristic with reference to the village-level integrations of societal features as compared with the intra-village and inter-village levels of integration of the same. In order to examine this point in respect of the economic organization of the people, we may inquire, among others, into the following characteristics; namely, how in terms of individual "industry", "occupation" or "place of work", or in terms of the combination of respective categories, the individuals or the households representing them form relations among themselves with reference to the three levels of integration. That is, to consider the source of livelihood of the people as an illustration, whether the households living separately on "mica", "coal" "agriculture" or "other industries" form respectively different levels of integration or conjointly the same level, in some cases at least. Or, if in all or some cases all the three or any two of the three levels of integration are noticed, whether any one of them can be isolated for each or all of them as the level of greatest importance. Also, whether the households living on any combination of different sources of livelihood behave differently in this respect from one another and/or from those which live on only one

of them.

29. Similar and further complex relations may be examined with respect to the three attributes of economic organization of the people, for which the households may be regarded for the present as forming certain characteristic groups for investigation and analysis. In that case, how should the study be planned in terms of village as variable, so that adequate numbers of households under the classifying categories are available for the necessary examination?

30. If the households classified by the categories of the three attributes do not show any village-wise segregation and concentration, *prima facie* it would appear that a demarcation of the field by village at the time of planning the study would have only operational advantage, if at all. Under the circumstances, should we select some villages from the field and examine all the households therein?

31. In the field under examination, the households belonging to different classifying categories are not found to indicate any concentration and segregation by villages (Table 3, columns 2-3); a feature not unknown in many other fields. So that if we insist on complete studies of a number of sampled villages, we may fail in our purpose, or at least be involved with an unnecessary load, irrespective of the number of villages we include in our sample. For whatever methods we may adopt to draw the villages in our sample, even by ignoring the limitations of some methods to the objective of our study, we are likely to be encumbered with proportionately too many households of certain categories and none or a negligible number of some others (Table 3, columns 4-8). This approach, therefore, does not appear as a satisfactory proposition.

32. Should we, then, select a number of villages and select a minimum number of households under each category? For the present data, we may fix the base at, say, 3 households, for that is the minimum number available under any category; or, say at 10 households, in order to get a reasonable number for each category except the one with 3 households which in view of the time and cost involved in their identification we may decide to neglect (Table 1, columns 4-5). Either way, however, we shall have to deal with all or a very large proportion of the total number of villages in the field.

33. Thus, in order to get the 3 households under all the 4 "industry" categories in the sample, we shall have to take into account all the 120 villages in the field; and in order to get at least 10 households under the "industry" category of "coal x agriculture x other industries", we shall have to consider some 80 villages, or 67% of the total number in the field (Table 4, column 7, Block 1). If we now assume that these villages will also give the required numbers of households under the other categories except for the category of "all industries", as "coal x agriculture x other industries" category represents the next smallest number of households in the field, we may surmise that following this procedure of two-stage sampling from an unstratified field, about 80 villages out of 120 will have to be sampled first and then their households (some

eight and half thousand) will have to be listed under relevant classificatory items of information in order to draw afterwards the stipulated number of households under each category as the second-stage sample.

34. Would this method, therefore, be appreciably less time and cost consuming than a direct listing of all the 12,736 households in the field and selecting the required number of households under each of the desired categories thereafter? The listing of these households took us 10 man-months by local investigators who were previously innocent of social surveys and who could do the work satisfactorily after a week's training. With the same personnel, the listing of 80 villages with an average of 106 households in each would take about 7 man-months, while some time and cost would certainly have to be allotted for the prior selection of the villages. Furthermore, in view of known or unknown extraneous and intrinsic factors of variation in the field, its coverage is likely to remain restricted by the two-stage sample. But these factors will play none or negligible role in the uni-stage sample of households directly from the field.

35. Evidently, with reference to the economic organization of the people in the field under examination, to consider village as variable indirectly from the data collected during a survey planned irrespective of village-wise demarcation is a better, or at least no less satisfactory, solution than a village-wise demarcation and selection of some of the minimal groups within some of the selected villages; while the selection and complete enumeration of the sampled villages do not seem to be satisfactory at all.

36. If, however, the field is very large, a listing of all its households, or of any other minimal group to be examined as a variate, may be an impractical proposition prior to the selection of uni-stage sample of the minimal groups irrespective of the demarcation of the field by village-boundaries at the planning stage. Thus, if the field consists of the entire rural area of West Bengal and household is the minimal group for study, we shall have to list, according to the 1951 census, some 4 million households strewn over about 30 thousand square miles. Under the circumstances, it may be a practical necessity to consider 35,063 inhabited villages of West Bengal as variables right from the planning stage of the study. But for the reason that either of the proposals for a complete enumeration of all households in the sampled villages or a two-stage sampling of villages and households from an unstratified field may not prove satisfactory (as pointed out earlier), we may examine whether a stratification of the field by some relevant societal factors prior to drawing a two-stage sample would improve the situation.

37. The procedure adopted in India for some of the "multi-purpose socio-economic surveys" is to stratify the field by some administrative boundaries, like State, district or tehsil, and take a sample of villages with probability proportional to their population or geographical area. Accepting the assumption implicit in this procedure that village area and population are highly correlated positively, and assuming further that the village "size" can be equally denoted by the number of households they contain, we

have examined whether this factor is of any use with respect to the economic organization of the people in the field under consideration. This factor should also be considered in view of the fact that large and small villages are considered by many social scientists as showing an intrinsic difference for their studies. In consideration of the number of households they contain, the villages have, therefore, been categorized as "very small" (1-25 households), "small" (26-50 households), "medium" (51-100 households), "large" (101-300 households), or "very large" (301-742 households).

38. In addition, for reasons stated earlier, we have taken into account the distances of the villages from Giridih and the nearest bus-route as two other societal factors of importance. The villages have thereby been categorized as of "near" distance (0.00-2.00 miles), "middle" distance (2.01-5.00 miles), or of "great" distance (5.01-10.00 miles) from Giridih town or bus-route.

39. Now, subject to the assumption made in paragraph 33 that all the possible categories would be represented by at least the same number of households (and none of them by very many more) as we decide to be the base for the classifying categories representing the minimum number of households under each stratum, we find that instead of drawing 80 villages from an unstratified field of 120, we may draw much smaller numbers if we stratify the field separately by the three factors; the best possible stratification by the factors being decided by the process of trial and error (Table 4, column 7). A maximum of 27.5 per cent reduction in the required quota of sample villages, from 80 in the unstratified field to 58 after stratifying it suitably by the distance of the villages from bus-route, can in this way be made by taking into account the three societal factors in expectation of their relevance to the course of study.

40. Further reduction may be possible by considering any two or all three of the factors together and/or other modes of stratification by these factors than those attempted here, and/or by introducing such other factors as have not been taken into account so far. All these have, no doubt, relevance to our study insofar as they indicate which are the factors to have relatively large or small bearing on the life and living of the people and how they manifest this bearing. But for the present we need not go into that topic. What is necessary now is to stress, as is known to all statisticians as a general statement, that if a two-stage sampling of villages and the minimal group has to be resorted to for our studies, the field should be suitably stratified by such factors as we expect from *a priori* knowledge to have a significant bearing on the life and living of the people under examination. And further, what may not always be fully appreciated, that for our purpose these factors should be the relevant *social* factors and not necessarily, or merely, such other factors as administrative boundaries or population.

41. Thus in the field and with respect to the economic organization of the people we find that as the economy of mica production and distribution dominates their life over the entire area and as while they can participate in this economy even by staying in their

village (if they like) the fruits of their labour go first to Giridih town and thenceforth to the outer world, their transport and communication facilities and their relative nearness to the town rate as of primary and secondary importance to their life and living. The size of the village, in this respect, comes thereafter. Therefore, a stratification of the field by the distance of the villages from the bus-route gives the most satisfactory result, the next by their distance from Giridih town, and the last by their size as large or not-large.

42. It should be pointed out that the figures for the required numbers of sample villages, as given so far, refer to finding the requisite numbers of households under the specified classifying categories at the 95 per cent probability level of occurrence (Table 4, column 7). In practice, the figures may not be so large, for they are likely to conform to the estimated numbers of required sample villages (Table 4, column 8).^{*} Even so, the relative importance of uni-stage versus two-stage sampling of the minimal group from the unstratified field (and the inefficiency of complete studies of the sampled villages in this respect), or of the two-stage sampling of villages and the minimal group from the stratified field by relevant societal factors versus the same from an unstratified field, is indicated by the above analysis ; for the economic organization of the people, at any rate.

43. Also in regard to the social organization of the people, as depicted by their affiliation to one of the seven community-religious-caste groups, the situation is not basically different. There are only 12 villages in the field which can be structurally isolated as representing only one of these groups ; and these 10 per cent of the total villages comprise only 2 per cent of the total number of households in the field (Table 5). And, even if we consider only the community-religious groupings of the people and ignore their caste-differentiations, we find that in the field of 120 villages there are only 38 purely Hindu villages, 1 such Muslim village, 2 purely tribal villages, and 1 village inhabited by people of other religious faiths, (Christianity in this case). But these 38 or 32 per cent of the total number of villages in the field comprise only 20 per cent of the total Hindu households therein, the Muslim village less than 0.1 per cent of the total Muslim households, the 2 tribal villages only 6 per cent of the total tribal households, and the village with people of "other" religious faiths only 5 per cent of such households in the field. Evidently, multi-group configuration is the characteristic of the villages in this respect also, as it was found for the economic organization of the people.

44. But contrary to what was found with respect to their economic organization, according to the community-religious-caste affiliation of the people the field cannot be regarded as a unit or part of a unit from the structural aspect. Certain interesting features

* This can be shown by counting exactly how many households of different classifying categories of "industry" occur in the total sample of villages, leaving out the other two attributes because their categories would certainly be largely represented in the light of the findings from previous analysis (Table A. 1).

are, no doubt, there in the multi-group configurations of the villages. Thus only 30 out of the 120 possible combinations of the 7 groups are found in the field ; and these relatively few combined categories, again, indicate the following significant associations among the groups. Namely, the "high-caste" Hindus do not occupy a village by themselves alone, and are usually the neighbours of "middle-caste" and or "low-caste" Hindus ; the "non-functional" and the "functional" Muslims are invariably associated with each other or with the "low-caste" and or "middle-caste" Hindus ; the tribals are very often found along with the "low-caste" and or "middle-caste" Hindus, and or the "functional" Muslims ; and the people of "other" religious faiths tend to have the tribals as neighbours along with other religious-caste groups. But these associations do not reveal any such density of one or a few combined categories in the field as to persuade us to consider the field as a unit or part of a unit, structurally considered.

45. Functionally, however, these associations may be of relevance to the study of village-level versus intra-village and inter-village levels of integration, for the relationships among the groups may be influenced by their respective location within or outside a village. Therefore, while planning our study in the context of the social organization of the people, we should bear this point in mind. For the present we may assume that if at least 10 households of each group (and particularly of the tribals, non-functional Muslims and "others") are brought under examination, the above distinction in the location of all the groups will be taken care of.*

46. Apropos to this assumption we find that even if we draw a sample of 10 per cent of the total villages in the field and insist on complete studies of the sampled villages, we are likely to get relatively too many households of some groups and few or none of some others (Table 6). As pointed out earlier, complete studies of a number of "village communities" may not, therefore, be useful in this respect as well.

47. On the other hand, if we resort to the two-stage sampling of villages and households in the field, we may have to consider as many as 71 villages from an unstratified field for the listing of households ; a figure not much smaller than 80 found with respect to the economic organisation of the people under the same sort of assumptions. (Table 7). We, however, find in this connection also that if it is not possible to draw the requisite sample of the desired minimal group directly from the field in one stage and so we are obliged to depend on two-stage sampling, the number of villages as the first-stage sample can be drastically reduced by suitable stratification of the field by relevant societal factors. Subject to the assumption made in paragraph 39, the figure 71 can thus be reduced to 45 (Table 7) ; and here, again, we notice the same relative importance of the factors as pointed out earlier.

48. The few tentative conclusions which are therefore forced on us from our present analysis are :

* The validity of the assumption is indicated by Table A. 2, which is prepared similar to Table A. 1.

(1) Structurally, the village cannot be considered as unit, and so "village studies" from this aspect are likely to have very little usefulness to us, as remarked by many social scientists.

(2) While at the moment the village should be considered as a variable in order to examine its unit-characteristics from the functional aspect, in a relatively small region the necessary investigation is best planned by a uni-stage sampling of the desired minimal groups.

(3) For larger regions, a two-stage sampling of the villages and of the minimal groups, instead of studying the sampled villages in their entirety, is desirable ; but here, again, the field should be stratified by relevant societal factors and not merely by administrative boundaries and population, as is usually done for the "socio-economic" surveys. This will facilitate the investigation, and a search for these factors will simultaneously indicate their role (comparatively or separately) on the life and living of the people concerned. Thus, the unit-characteristics of the villages from the functional aspect can be, eventually, better investigated.

49. Further studies in this line in this area, and similar studies in others, will, I believe, be useful to our theoretical and practical considerations on "Studies of tribal and non-tribal village communities." This is why this note is placed before you for a discussion.

NOTE

1. This paper was presented at the First Convention of Social Anthropologists in India held at Lucknow in March 1960.

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Table I.

Classifying categories of the Attributes (with abbreviations of the Items)	Villages with only such house- holds as are affiliated to one/more items of the categories under Col. (1)	Total num- ber of house- holds in the villages un- der Col. (2), including those (total 200) with- out any or all of 3 attri- butes	Total num- ber of such households in the circle as are affili- ated to all items of categories under Col. (1)*	Villages with such households as are un- der Col. (4) with/with- out house- holds of other cate- gories
(1)	(2)	(3)	(4)	(5)
(1) Industry				
1. Mica (M)	—	—	2225	98
2. Coal (C)	—	—	4406	87
3. Agriculture (A)	2	4	1388	110
4. Other industries (O)	1	2	1695	104
5. Mica, Coal (MC)	—	—	882	74
6. Mica, Agriculture (MA)	1	8	670	83
7. Mica, Other industries (MO)	—	—	215	36
8. Coal, Agriculture (CA)	2	61	423	60
9. Coal, Other industries (CO)	1	4	370	65
10. Agriculture, Other indus- tries (AO)	4	75	266	66
11. Mica, Coal, Agriculture (MCA)	2	68	69	28
12. Mica, Coal, Other indus- tries (MCO)	2	270	29	16
13. Mica, Agriculture, Other industries (MAO)	6	117	57	30
14. Coal, Agriculture, Other industries (CAO)	3	67	22	15
15. Mica, Coal, Agriculture, Other industries (MCAO)	96	12060	3	3
(2) Occupation				
1. Non-manual (N)	—	—	1142	84
2. Manual (L)	22	434	10884	119
3. Non-manual, Manual (NL)	98	12302	510	76
(3) Place of work				
1. Residential village (R)	5	77	3197	116
2. Other villages (V)	2	38	3808	98
3. Giridih town (T)	1	2	2558	103
4. Residential village, Other villages (RV)	3	39	798	85
5. Residential village, Giridih town (RT)	7	164	1297	98
6. Other villages, Giridih town (VT)	—	—	754	69
7. Residential village, Other villages, Giridih town (RVT)	102	12416	124	51
Total for the circle of 0.5 mile radius from Giridih town	120	12736	X	X

*Col. (4) excludes 16 households out of 12,736 which have no "industry", occupation and place of work (i.e., they live on savings and charity), and 184 households which have "industry" but no occupation and place of work (i.e., their source of livelihood is as rent-receiver, non-cultivating owner of land, etc.).

Table 2.

Classifying categories of the Attributes as per item-wise abbreviations in col. (1) of Table 1.		Number of such households as are affiliated to all items of the categories under col. (1), constituting—			P
		all 120 villages in the circle	all 96, 98 and 102 villages under all "industry", occupation and place of work categories, respectively, of col. (2), Table 1.	Chi-square values for each category of col. (1)	
(1)	(2)	(3)	(4)	(5)	
(1) Industry					
1. M	2225	2186	2.9620	0.05 < P < 0.10	
2. C	4406	4219	0.5295	0.30 < P < 0.50	
3. A	1388	1156	18.9985	P > 0.001	
4. O	1695	1593	0.0897	0.70 < P < 0.80	
5. MC	882	849	0.2347	0.50 < P < 0.70	
6. MA	670	637	0.0063	0.90 < P < 0.95	
7. MO	215	215	0.5931	0.30 < P < 0.50	
8. CA	423	408	0.1222	0.70 < P < 0.80	
9. CO	370	352	0.0028	0.95 < P < 0.98	
10. AO	266	251	0.0040	0.90 < P < 0.95	
11. MCA	69	69	0.2462	0.50 < P < 0.70	
12. MCO	29	29	0.0357	0.80 < P < 0.90	
13. MAO	57	56	0.0741	0.70 < P < 0.80	
14. CAO	22	22	0.2000	0.50 < P < 0.70	
15. MCAO	3	3	0.5000	0.30 < P < 0.50	
Total	12720	12045	×	×	
(2) Occupation					
1. N	1142	1142	1.3790	0.20 < P < 0.30	
2. L	10884	10456	0.2983	0.50 < P < 0.70	
3. NL	510	510	0.5862	0.30 < P < 0.50	
Total	12536	12108	×	×	
(3) Place of work					
1. R	3197	3048	1.5715	0.20 < P < 0.30	
2. V	3808	3763	1.6465	0.30 < P < 0.50	
3. T	2558	2512	0.1299	0.70 < P < 0.80	
4. RV	798	790	0.1553	0.50 < P < 0.70	
5. RT	1297	1235	0.7115	0.30 < P < 0.50	
6. VT	754	754	0.4912	0.30 < P < 0.50	
7. RVT	124	124	0.0744	0.70 < P < 0.80	
Total	12536	12226	×	×	

Table 3.

Classifying categories of the attributes as per item-wise abbreviations in column 1 of Table 1.	Percentage to total of such house holds as are affiliated to all items of categories under col.1 (cf.col.4 of Table 1)	Percentage to total of such villages as are with house-holds under Col.2, with/ without households of other categories (cf.col. 5 of Table.1)	Number of households under the categories within a sample of villages in the field				
			Estimated for a 10% random sample, as one-tenth of total house-holds under each category	Actual first-drawn sample			
				Simple random sample without replacement	Random sample with probability proportional to the number of house holds in the village		
					Direct	Inverse	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Industry							
1. M	17.49	81.67	222	281	505	127	12
2. C	34.64	72.50	441	861	1357	432	27
3. A	10.91	91.67	139	73	193	69	66
4. O	13.33	86.67	170	238	326	97	42
5. MC	6.93	61.67	88	256	307	105	5
6. MA	5.27	69.17	67	44	106	20	26
7. MO	1.69	30.00	22	64	72	21	—
8. CA	3.33	50.00	42	17	69	34	17
9. CO	2.91	54.17	37	70	106	25	1
10. AO	2.09	55.00	27	28	40	9	6
11. MCA	0.54	23.33	7	2	12	8	4
12. MCO	0.23	13.33	3	9	14	2	—
13. MAO	0.45	25.00	6	3	11	2	3
14. CAO	0.17	12.50	2	2	6	2	—
15. MCAO	0.02	2.50	0.3	1	—	—	—
Total	100.00	×	1273.3	1949	3124	953	209
(2) Occupation							
1. N	9.11	70.00	114	135	224	79	27
2. L	86.82	99.17	1089	1691	2739	818	170
3. NL	4.07	63.33	51	90	123	39	8
Total	100.00	×	1254	1916	3086	936	205
(3) Place of work							
1. R	25.50	96.67	320	145	567	86	91
2. V	30.38	81.67	381	896	565	489	36
3. T	20.40	85.83	256	380	1222	150	22
4. RV	6.37	70.83	80	86	292	64	18
5. RT	10.35	81.67	130	128	154	99	29
6. VT	6.01	57.50	75	270	262	35	3
7. RVT	0.99	42.50	12	11	24	13	6
Total	100.00	×	1254	1916	3086	936	205

Table 4.

Description of strata for the stratification of the field for two-stage sampling of villages and households	Minimum number of households to be surveyed = base or "b"	Category of col. (1) of Table 1, with the least number of households above "b" in the stratum	Number of households under the category per stratum	Mean number of such households per village in the stratum = $\bar{x}$	s^*_x	Number of villages to be sampled without replacement to obtain "b" with probability = 0.95*	Estimated number of villages per stratum to obtain "b" (cf. col. (4) of Table 3)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Field unstratified							
×	3	MCAO	3	0.0250	0.1562	120	120
×	10	CAO	22	0.1833	0.5474	80	55
(2) Stratification by the distance-category (in miles) of villages from Giridih town							
Near (0.00-2.00)	3	MCO	13	0.6190	1.1742	12	5
Middle (2.01-5.00)	3	MCO	14	0.1918	0.5889	38	16
Great (5.01-10.00)	3	MO	8	0.3077	0.8213	11	10
Total	9	×	×	×	×	61	31
Near	5	MCO	13	0.6190	1.1742	15	8
Not near	5	MCO	16	0.1616	0.5262	57	31
Total	10	×	×	×	×	72	39
Not-great	5	CAO	19	0.2021	0.5758	48	25
Great	5	MO	8	0.3077	0.8213	23	16
Total	10	×	×	×	×	71	41
(3) Stratification by the distance-category (in miles) of villages from bus route							
Near (0.00-2.00)	3	CAO	17	0.2297	0.6270	32	13
Middle (2.01-5.00)	3	CAO	5	0.1316	0.4085	33	23
Great (5.01-10.00)	3	MCA	4	0.5000	1.3229	8	2
Total	9	×	×	×	×	73	38
Near	5	CAO	17	0.2297	0.6270	41	22
Not-near	5	MCO	8	0.1739	0.1539	33	29
Total	10	×	×	×	×	74	51
Not-great	5	CAO	22	0.1964	0.5644	50	25
Great	5	C	7	0.8750	1.3636	8	6
Total	10	×	×	×	×	58	31

*s denotes sigma.

(4) Stratification by village "size" (number of households in the villages)

Very small (1-25)	2	MAO	4	0.1379	0.4335	25	15
Small (26-50)	2	MCA	4	0.1290	0.4206	26	16
Medium (51-100)	2	MO	10	0.3704	0.6748	13	5
Large (101-300)	2	MCO	10	0.4348	0.8760	13	5
Very large (301-742)	2	CAO	7	0.7000	0.7810	4	3
Total	10	×	×	×	×	81	44
All small	3	MCA	4	0.0667	0.3092	57	45
Medium	3	MO	10	0.3704	0.5455	17	8
All large	3	CAO	18	0.6748	0.8907	13	6
Total	9	×	×	×	×	87	59
Not-large	5	MO	17	0.1954	0.5432	47	26
All large	5	CAO	18	0.5455	0.8907	17	9
Total	10	×	×	×	×	64	35

$$\frac{\bar{x} - \frac{6}{n}}$$

$$= 1.644854$$

$$s_x \sqrt{\frac{(N-n)}{(N-1)n}}$$

Where N = total number of villages in the stratum, n = number of villages to be sampled, s = sigma and 1.644854 is the value corresponding to the single-tailed probability 0.05 (cf. Fisher and Yates, 1957, Table 1).

Table 5.

Community-religious-caste groups, and their combinations	Villages with such households as are affiliated to the category in Col.(1)	Total number of households in the villages under Col.(2)
(1)	(2)	(3)
1. Hindu—"high castes" (H_1)	—	—
2. Hindu—"middle castes" (H_2)	8	184
3. Hindu—"low castes" (H_3)	1	24
4. Muslim—non-functional (M_1)	—	—
5. Muslim—functional (M_2)	—	—
6. Tribal (T)	2	54
7. "Others" (O)	1	2
Any one group (4/7)*	12	264
8. H_1+H_2	3	62
9. H_1+H_3	3	46
10. H_1+T	1	24
11. H_2+H_3	5	175
12. H_2+M_2	5	121
13. H_2+T	1	29
14. H_3+M_2	1	6
15. H_1+M_2	1	2
Any two groups (8/21)*	20	465
16. $H_1+H_2+H_3$	18	1276
17. $H_1+H_2+M_2$	2	77
18. H_1+H_2+T	1	20
19. $H_1+H_3+M_2$	1	22
20. H_1+H_3+T	1	17
21. $H_2+H_3+M_1$	1	27
22. $H_2+H_3+M_2$	11	443
23. H_2+H_3+T	2	96
24. H_2+M_2+T	1	21
25. H_3+M_2+T	1	25
Any three groups (10/35)*	39	2024
26. $H_1+H_2+H_3+M_2$	11	1423
27. $H_1+H_2+H_3+T$	3	203
28. $H_2+H_3+M_1+M_2$	2	229
29. $H_2+H_3+M_2+T$	3	296
Any four groups (4/35)*	19	2156
30. $H_1+H_2+H_3+M_1+M_2$	6	1931
31. $H_1+H_2+H_3+M_1+T$	1	28
32. $H_1+H_2+H_3+M_2+T$	9	1372
33. $H_1+H_2+H_3+M_2+O$	1	234
Any five groups (4/21)*	17	3565
34. $H_1+H_2+H_3+M_1+M_2+T$	6	1542
35. $H_1+H_2+H_3+M_1+T+O$	1	411
36. $H_1+H_2+H_3+M_2+T+O$	2	595
Any six groups (3/7)*	9	2548
37. $H_1+H_2+H_3+M_1+M_2+T+O$	4	1714
All available categories (34/127)	120	12736

*Available number of groups/Possible number of groups.

Table 6.

Community-religious-caste groups by their abbreviations as in Col.(1) of Table 5.	Total number of households in the field under each group	Villages with households of each group, with/without of other groups	Number of households under each group within a sample of villages in the field				
			Estimated for a 10% random sample, as 1/10 of total households under each group	Actual first drawn sample			
				Simple random sample without replacement	Random sample with probability proportional to the number of households in the village		
					Direct	Inverse	
				10% sample	10% sample	5% sample	10% sample
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
H ₁	1091	74	109	64	109	39	40
H ₂	3378	107	338	220	778	136	92
H ₃	4549	94	455	653	1183	490	29
M ₁	164	22	16	27	28	20	—
M ₂	2605	68	261	858	903	200	37
T	907	40	91	128	108	61	10
O	42	9	4	1	18	8	2
Total	12736	×	1274	1951	3127	954	210

Table 7.

Description of strata for the stratification of the field for two-stage sampling of villages and households	Minimum number of households to be surveyed = b	Groups as per Col. (1) of Table 5 with the least number of households above "b" in the stratum	Number of households under the group per stratum	Mean number of households per village in the stratum $\bar{x}$		Number of villages to be sampled with-out replacement to obtain "b" with probability = 0.95	Estimated number of villages per stratum to obtain "b"
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Field unstratified							
×	10	T	907	7.5583	20.0893	19	1
×	10	M ₁	164	1.3667	5.0132	38	7
×	10	O	42	0.3500	1.6815	71	29
(2) Stratification by the distance-category (in miles) of villages from Giridih town							
Near (0.00-2.00)	3	O	9	0.4286	1.0033	9	7
Middle (2.01-5.00)	3	O	32	0.4383	4.3009	33	7
Great (5.01-10.00)	3	M ₁	18	0.6923	3.0731	20	4
Total	9	×	×	×	×	62	18
Near	5	O	41	0.4362	1.8882	46	23
Not-near	5	M ₁	18	0.6923	3.0731	22	14
Total	10	×	×	×	×	69	37
Not-great	5	O	9	0.4286	1.0033	18	12
Great	5	O	33	0.3333	1.7916	58	15
Total	10	×	×	×	×	76	27
(3) Stratification by the distance-category (in miles) of villages from bus-route							
Near (0.00-2.00)	3	O	33	0.4459	1.9252	37	7
Middle (2.01-5.00)	3	O	9	0.2368	1.2862	32	13
Great (5.01-10.00)	3	T	10	1.2500	3.3072	7	2
Total	9	×	×	×	×	76	22
Near	5	O	33	0.4459	1.9252	42	11
Not-near	5	O	9	0.1957	1.1725	36	26
Total	10	×	×	×	×	78	37
Not-great	5	O	42	0.3750	1.7378	37	13
Great	5	T	10	1.2500	3.3072	8	4
Total	10	×	×	×	×	45	17

s* denotes sigma

(4) Stratification by village "size" (number of households in the village)

Very small (1-25)	2	T	62	2.1379	6.2352	7	1
Small (26-50)	2	M ₁	3	0.0968	0.2956	28	21
Medium (51-100)	2	M ₁	20	0.7407	2.4128	17	3
Large (101-300)	2	O	15	0.6522	1.8084	14	3
Very large (301-742)	2	O	25	2.5000	4.5000	6	1
Total	10	×	×	×	×	72	29
All small	3	M ₁	4	0.0667	0.2494	58	45
Medium	3	M ₁	20	0.7407	2.4128	11	4
All large	3	O	40	1.2121	2.6828	13	2
Total	9	×	×	×	×	82	51
Not-large	5	M ₁	24	0.2759	1.3953	56	18
All large	5	O	40	1.2121	2.6828	21	4
Total	10	×	×	×	×	77	22

Table A. 1

Number of households in the sample under specified stratification of the field and quota of sampled villages (villages quota for each column under)

Classifying categories of house-holds 'Indus-try' as in the per item-field under brev-ia-tions in col. (1) of sify-Table—1 ing cate-gory.	Village distance from Giridih town										Village distance from bus-route										Village "size" by household numbers										
	unstraight field					near/middle/ great		near/not-near		great/not-great		near/middle/ great		near/not-near		great/not-great		very small/ small/medium/ large		all small/ me-dium/all large/ not-large											
	(80)	(55)	(4)	(3)	(2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	
1. M	2225	1365	981	1368	698	1510	643	1448	762	1260	428	1413	978	949	765	1055	421	1107	618	1250	910										
2. C	4406	2207	1560	2367	504	2233	1218	3758	1886	2634	656	2864	1745	2554	1219	2421	1576	1931	450	2859	1732										
3. A	1388	958	642	709	443	728	394	1029	490	850	354	883	562	621	365	809	436	897	571	755	439										
4. O	1695	995	651	1064	452	1067	456	1255	671	840	243	1055	686	843	624	841	367	814	381	924	653										
5. MC	882	436	316	465	215	444	151	676	336	480	288	659	462	413	282	485	248	353	353	90	482	333									
6. MA	670	486	325	333	249	366	191	444	222	443	294	465	289	270	153	372	176	405	277	344	182										
7. MO	215	86	67	120	40	111	48	186	95	110	78	147	96	140	84	122	81	87	13	134	96										
8. CA	423	274	171	108	53	184	111	376	162	267	130	319	159	255	138	177	117	241	91	212	135										
9. CO	370	208	123	263	161	251	129	252	88	210	110	166	175	134	88	185	74	178	117	182	124										
10. AO	266	230	137	117	72	149	80	210	100	135	75	189	109	143	98	134	55	149	79	160	88										
11. MCA	69	43	28	20	12	32	17	58	27	54	31	51	30	31	18	32	23	30	11	38	22										
12. MCO	29	13	11	14	5	14	3	24	16	13	9	23	14	15	14	18	9	7	—	20	13										
13. MAO	57	41	23	29	21	29	15	39	13	32	19	33	21	17	13	32	20	30	20	24	17										
14. CAO	22	14	9	6	3	7	6	19	8	8	6	15	9	14	10	16	8	11	5	14	9										
15. MCAO	3	3	2	2	2	2	—	2	1	2	2	1	1	1	1	3	2	2	2	2	1										
Total	12720	7359	5046	6985	2930	7127	3462	9806	4877	7329	2723	8383	5336	6400	3782	6702	3613	6242	2752	7400	4754										

Table A. 2

number of households in the sample under specified stratification of the field and quota of sampled villages (village quota for each column under)																					
commu- nity-reli- gious- caste groups in the field abbrevia- under each in col(1) of muni- ty and religi- ous caste group	village distance from Giridih Town					village distance from bus-route					village "size" by household numbers										
	unstrati- fied	near/middle- great	near/not- near	great/not- great	near/mid- dle/great	near/not- near	great/not- great	(17)	(16)	(15)	(14)	(13)	(12)	(11)	(10)	(9)	(8)	(7)	(6)	(5)	(4)
(1)	(71)	(29)	(62)	(18)	(37)	(76)	(27)	(76)	(22)	(78)	(37)	(45)	(17)	(72)	(29)	(82)	(51)	(77)	(22)	(22)	(22)
	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(22)
H1	1091	537	301	685	187	745	269	727	261	635	176	770	307	613	217	358	110	433	106	697	134
H2	3378	1949	796	1935	585	2148	1299	2391	1022	2130	494	2244	884	1422	541	1264	828	1436	689	2182	724
H3	4549	2532	1080	2280	753	2423	1088	2484	1001	2820	763	2687	1503	1837	635	1668	637	2217	799	2886	857
M1	164	49	39	94	69	95	81	95	89	102	40	126	69	87	66	40	25	97	25	106	42
M2	2605	1238	547	1155	654	1262	843	1254	802	1305	512	1251	802	1389	900	862	254	1548	803	2236	525
T	907	714	242	478	109	618	391	571	295	605	284	553	391	260	15	346	84	534	180	486	34
O	42	24	18	35	4	35	5	35	5	30	10	29	10	19	—	13	—	13	4	23	2
Total	12736	7043	3023	6662	2361	7326	3976	7557	3475	7627	2279	7660	3966	5627	2374	4551	1938	6278	2606	6816	2318

Table A. 2 (contd.)

Multi-group configuration of the sampled villages (Reference serial numbers of col. (1) Table 5).

For	col.	(3): 6-12, 16-24, 26-27, 29-30, 32-37.
"	"	(4): 9, 11-12, 16-17, 21-22, 24, 26-27, 32-36.
"	"	(5): 2, 8-12, 14-16, 20, 22-23, 25-27, 29-32, 34, 36-37.
"	"	(6): 9-12, 16, 22-23, 26-27, 29-31, 34, 37.
"	"	(7): 2, 8-16, 20, 22-23, 25-27, 29-32, 34, 36-37.
"	"	(8): 8-11, 13-16, 20, 22, 26-27, 29-32, 34, 37.
"	"	(9): 2, 8-16, 18, 20, 22-23, 25-27, 29-32, 34, 36-37.
"	"	(10): 2, 9, 11-12, 14, 16, 22, 25-27, 29-31, 34, 36-37.
"	"	(11): 2, 6-9, 11-12, 14-17, 22-23, 26, 28-37.
"	"	(12): 2, 8-9, 16-17, 22-23, 26, 28-32, 34, 37.
"	"	(13): 2, 6-9, 12, 14-17, 22-23, 25-27, 29-30, 32-34, 36-37.
"	"	(14): 2, 6, 8-9, 16-17, 22-23, 25-26, 29, 32-34, 36-37.
"	"	(15): 2, 6-8, 11-12, 15-19, 22, 26, 28, 30, 32, 34, 36-37.
"	"	(16): 6-7, 11, 16-17, 22, 26, 28, 30, 32, 34.
"	"	(17): 2, 6, 8-12, 16-17, 22-23, 25-26, 28-37.
"	"	(18): 2, 8, 11-12, 16-17, 22-23, 26, 29-30, 32, 34-37.
"	"	(19): 2-3, 6-9, 11-12, 15-17, 22-24, 26-37.
"	"	(20): 2-3, 6, 8, 11-12, 16-17, 22-23, 26-27, 29-30, 32, 34, 36-37.
"	"	(21): 2, 6, 8-9, 11-12, 14-17, 21-22, 26-27, 29-32, 34, 36-37.
"	"	(22): 8, 11-12, 16-17, 21-22, 26-27, 29-30, 32, 34, 36-37.

SOME PRELIMINARY OBSERVATIONS CONCERNING THE ANTHROPOLOGY OF INDUSTRIALIZATION

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It has become inevitable that the anthropologist must bring his peculiar methods to bear upon modern civilization. This is because modern civilization is rapidly spreading into every corner of human existence and rendering evermore difficult any clear-cut differentiation of man into the time-honoured categories of "simple" and "complex", "savage" and "civilized", "isolated" and "heterogeneous", etc. The flow taking place today is actually two-directional: The modern way, from its bases in the great centers of urban-industrial civilization, is penetrating the less modern societies; this in turn is generating a reverse movement of peoples out of "backward" areas and toward the heartlands of modern urbanized life.

Up to now most anthropological studies of this "modernizing process" have limited their scope to the traditional unit of anthropological inquiry—the primitive isolate and its reasonable facsimile, the peasant village. This has certainly been the primary interest of the acculturation approach of American anthropology, born as it was out of a regard for the impact of American civilization upon the aboriginal peoples of North America. Certainly this has also been the primary focus of the Africanist anthropologist whenever he has concerned himself with the matter of change. Titles such as, *Tribal Cohesion in a Money Economy* (Watson, 1958) and *Economic Development and Tribal Change* (Richards, n.d.) indicate the emphasis.

Village studies began with the work of Redfield (1941; 1056) in Mexico and the Wisers (1935) in India, and have grown into a major dimension of anthropological inquiry, with India and Latin America as their chief geographical foci, but with extensions into all the major areas of the world (Émbree, 1946; Firth, 1946; Garigue, 1956, etc.). The village study's growth in importance is especially a reflection of the increasing immanence of modern complex civilization in all its numerous manifestations in the life of man everywhere and the consequent inevitability that anthropology would have to come to grips with its implications.

But it seems to me that a further development is now in the winds—a development which in point of fact was forecast more than twenty years ago by the controversial work of an anthropologist who abandoned an interest in Australian tribes to investigate the social life of a medium-sized American community by treating it as if it were conceptually equivalent to a primitive isolate. I refer, of course, to W. Lloyd Warner and the community studies approach initiated by him and his associates (1941). By studying a unit of complex modern society as a particular whole within a wider whole, Warner was implicitly asking the question, "What

can the anthropological method teach us about the nature of modern social structure which the disciplines more conventionally concerned with such phenomena (sociology, psychology, economics) cannot?"

The limitations inherent in what Warner and his successors did failed to provide a complete answer to their question. For example, they opened themselves to the criticism that overconcentration upon the nature of only one of the concrete units of modern American civilization failed to provide adequate foundations for the generalizations they eventually made concerning the wider question of "social class in America." Even within the framework of community studies they never achieved a typology of urban communities suitable enough to make clear what was general and what idiosyncratic about urban stratification processes. Yet their contribution was unquestionably that they opened up a great new vista of thinking and research in the social sciences which we might for the sake of brevity characterize as the anthropology of the modern complex society. They made the techniques of participant observation and microscopic examination of units of social structure against their wider context respectable adjuncts of the questionnaires, the statistics, and the tests of the sociologists, economists and psychologists in the investigation of the major civilization.

The further development now emerging in anthropology, then, is the ever-increasing use of anthropological method in the complex society and, simultaneously and inevitably with this, a widening search for better understanding of what are the units which anthropology is conceptually capable of investigating in this context. We have already gone beyond Warner in both respects, actually. Attempts have been made to do the anthropology of Hollywood (Powdermaker, 1947); the social structure of the psychiatric hospital has been studied in an anthropological manner (Henry, 1960); the role of kinship in the composition and functions of the personnel of a New England brick factory have been investigated by an anthropologist (DesPres, 1958); the nature of kinship structure in various settings of the United States and England has been receiving widespread attention by some anthropologists (Schneider and Homans, 1956; Firth, 1956; Bott, 1957; Young and Wilmott, 1957). The relationship between the personality structure of autistic children and the structure of their most intimate socialization groups, called the "*personal community*", is in process of being studied by an anthropologist whose original doctoral work was done among hunters and gatherers of the Amazon jungle. (Henry, 1959). More impressionistic work has contrasted themes in primitive tribes with their seeming counterparts in American civilization (Benedict, 1946), or has compared the sex roles of Americans with those of Samoans and Melanesians. (Mead, 1946; 1949). Still other work has tried to generalize about modern societies in anthropological terms on the basis of secondary sources (Benedict, U. K.; Mead, 1952; Gorer, 1948).

Yet, even though there have been anticipations and beginnings reaching back more than a generation, anthropological studies of modern complex civilizations may be said to be still in their infancy.

Only the barest indications of either methods, concepts, or ends are visible as yet. Before there can be more than this, of course, "field studies" must be undertaken and completed on the basis of which conclusions of various kinds can be drawn; and before this can be done, a better idea of what the "fields" in this area are for anthropological study must be worked out.

In this paper, some attention will be paid to this latter with respect to a particular area of the anthropology of modern civilization and with respect to a particular project currently being undertaken by the author. In all respects, everything said here must be regarded as preliminary and incomplete, subject to change in the author's own mind as his research moves onward into new dimensions.

Specifically, the concern here is with what might be called the anthropology of the industrialization process. And within this still vast subdivision of the study of modern complex societies, the focus is to be upon the social structural consequences of industrialization for peasantries. But in contradistinction to most previous anthropological work on this subject, the main concern is with what alterations in social and personality structure the peasant migrant is compelled to make when he comes to the city, simply because the demands made by the city upon people's time, feelings, and activities is vastly different from what it is in the rural settings from whence they emanate.

If we are to be concerned with peasantries and urbanites in an industrializing society, then it becomes necessary to render some definitions of the phenomena and conditions to be considered.

Industrialization is a process which has been primarily the concern of economists. As a process its specific historical origins are the English Midlands of the second half of the Eighteenth Century. It is essentially a change in the mode and organization of production—being based upon machines run by power (originally steam, but now electricity and atomic energy as well) and upon bureaucracy which is the social structure which coordinates the activities of men and machines for the end of producing a marketable commodity. In no more than two centuries, it has revolutionized the material and moral condition of the entire world, and because of this has inevitably affected the subject-matter of anthropology.

From the standpoint of anthropology, industrialization is the emergence of a new culture, presupposing a whole range of new social structures, which must be articulated with a prior culture, which presupposes a number of very different ones. Two of the most fundamental changes are that productive activities are removed from the context and control of kinship groups and placed in a bureaucratic setting, and that systems of local social and economic interaction tend to be replaced by regional, national, and international units focussed upon cities and controlled by pecuniary factors. The location of productive activities in urban factories, the expansion and pecuniarization of interaction systems, and the emphasis upon efficiency and merit in the filling of occupational roles sets up three forms of movement or mobility in society. (1) Technological changes simultaneously produce population increases

and reduce manpower requirements in the rural areas where most people are living and create a basis for displacement of surplus population toward the expanding productive activities in cities. (2) Production changes permit vertical movement in the society in accordance with occupational capabilities. (3) The general pattern of modernization progressively "feeds back" into the rural areas and causes its social structure to more and more resemble that of the urban centers from whence modernization flows.

Peasantries are aspects of a particular kind of civilization—one which I shall call simply the non-industrial civilization. Foster (1953) was one of the first to give systematic recognition to this fact and to point up the impossibility of thinking of peasant communities as being self-contained (isolated, homogeneous, and integrated, as Redfield had put it) in the sense that a small primitive tribe is a unitary phenomenon. Actually, the non-industrial society is anchored in two interdependent communities whose interrelationships are profoundly determined by the limitations which the technology of such a society imposes upon them. These are the agricultural village and the city. The former consists of a few score families practising agriculture or a related profession as *families* (ordinarily corporate or extended in form, but not always—cf., Tax, 1953). The latter consists of the ruling elite, their administrative and military adjuncts, and the various specialists and menials who serve their needs and the needs of the hinterland. Technology, based upon animal power, ordains that eighty percent or more of the population of such civilizations reside in agricultural villages where, within their kin groups, they produce subsistence plus a modest surplus that is administratively appropriated by the urban elites to support themselves, their entourage, and a certain measure of Culture.

The point is that the productive system does not permit the full absorption of the rural pattern of life into the urban. Each sphere holds its own to a certain degree, as it were. The power of the urban-based ruling class is the power of appropriation and not of absorption. That is why the peasant village is so seemingly contradictory—why, that is, it is in so many respects like a primitive isolate while in other respects it displays innumerable intrinsic interconnections—economic, political, cultural, moral, etc.—with urban centers. The essence of the non-industrial civilization is a technological order which necessitates a symbiotic balance between urban centers and surrounding clusters of peasant villages from whom food supply, manpower, and resources are obtained in exchange for "protection", finished products, and Culture.

To the extent that villages are concerned with subsistence, they are turned inward and tend to be oriented toward local social interaction, local economic ties, local supernatural objects and beliefs, etc. To the extent that villages are concerned with paying taxes, dealing with government officials, serving in armies, providing corvée labor, marketing in the city, etc., they tend to be oriented toward national cultural symbols, wider economic ties, more extensive and sophisticated circles of social interaction. Both patterns operate simultaneously in the villagers' life.

Because production is rooted in kinship structures in non-industrial civilizations, occupational roles and the persons occupying them are ordinarily regarded as identical. The fact that most people are in addition residing in villages means that occupational role and status are easily discernible or, as Linton (1936) and those who have followed him (cf., Parsons, 1951, 1953) have put it, *ascribable*. The degree has varied somewhat historically but by and large stratification systems of non-industrial civilizations have tended to be *ascription-oriented*, or caste-like. True caste has existed wherever the *ascription-oriented* stratification order has become *morally intrinsic*, by which I mean the development and ethical execution of the notion that the different occupational levels (some if not all) constitute different degrees of moral worth and purity and that, therefore, the people occupying these levels (because work role and person are deemed one) are differentially morally pure. In such instances this has led to a concept of pariah or untouchable status where some are thought to be utterly morally impure because their occupations are contaminating. The final test of the degree of development of true caste is the degree of rigidity with which endogamy, anti-commensalism, and other forms of social avoidance are maintained between functionally specialized groups that are mainly differentiated on the basis of occupation.

The nature of industrial technology works in strong opposition to the premises underlying ascription-oriented occupational stratification. Rural communities harbor an ever-dwindling minority of the total population while "feed back" from the urban-centered productive and distributional systems converts even the rural remnant into an organizational- and value-satellite of the city. The need for efficiency in production, coupled with the increase in all forms of mobility, leads to a distinguishing between occupational role and role-occupant. *Achievement-orientation* becomes paramount in that one individual can theoretically occupy many occupational roles and thus statuses commensurate with his ability. In other words, stratification is in terms of *class* rather than *caste*.

In societies like India, non-industrial civilization is still predominant although steadily yielding ground to emerging industrial civilization. Peasantries and pre-industrial urban elements still abound even though demographic and economic factors are impelling more and more people to migrate into the city and get involved in the new pattern of life forming there. The villages themselves still manifest their dualistic character to a high degree—their admixture of centripetalness and contrifugalness, that is—and shall continue to do so for a long while even though the "feed-back" process inherent in industrialization is very much in evidence (as, for example, in the N. E. S.). I have discussed and empirically illustrated this duality as it is currently operative in a previous paper (Gould, 1959) and have noted how its careful delineation might actually be made a basis for gauging change.

When peasants leave their kin groups in the villages and migrate to the cities, it may be for a number of reasons. But once they have done so, they are confronted with certain salient realities about their past and their present situation. They have come from

rural communities where caste as a true system of ritually graded, functionally differentiated, endogamous, economically interdependent, localized social groups is operative ; where fellow workers ordinarily are kinsmen or at worst fellow villagers ; where places of work, socialization, procreation, and recreation are spatially coterminus ; and where social relationships and obligations are founded upon personal ties, or what Parsons (after Weber) has called *particularism*. They have entered cities where work, play, procreation, socialization, and recreation are more often lodged in specialized groups that are not spatially coterminus in the sense that village activities are ; where the personal relationship is rarer and far less dependable ; where life's necessities and luxuries are obtained with money in a market that is bureaucratized and world-wide in its ramifications.

Thus, from an anthropological standpoint, what are the socio-cultural environments into which the peasant enters when he comes to the city ? What rearrangements must he make in the pattern of his social life and his personality ? What are the most significant criteria for determining what he does and what positions he comes to occupy in the city ? Why does he select this city rather than that one ? And perhaps ultimately, at what point must we stop speaking of a person as peasant and begin regarding him as something else ? What are the degrees by which a person is absorbed completely into the modern civilization ?

At the other end of the process, we may ask what are the general and particular circumstances which lead to severance of an individual from his village community and kinship group and send him off into the city in search of his fortune ? Within a given family, why is it, say, Son A rather than Son B who makes the break ?

To begin with a very general observation, it seems accurate to say that when a person moves from the village to the city the determination of his social status shifts from its basis in a kin group to an occupational group. The effect of this is immediate, because the moment he arrives in the city, the person's job skills become determinant in the general location and level of his life there. It determines the former because the job obtained will be in some particular place and it determines the latter because the money income a skill commands dictates the general limits of amenities a person will be able to procure. In short, one's job is a major nexus of social interaction which in turn plays a profound and fundamental role in the delineation of all other patterns of interaction which a city-dwelling person will enter into.

Place of work and place of residence are spatially distinct in the city whereas they are normally coterminus in the village. A man or woman who holds a city job has a whole series of interactions during the hours of work with people whom they may rarely if ever see afterwards. This means that the variety of the backgrounds encountered in persons with whom one interacts in the natural course of one's life is infinitely greater than is true in a village. Take the matter of providing basic services to the families of "Sherupur" (pseudonym for a village in the Faizabad District). Eighty-one families in the village maintain service ties with speci-

alists in washing clothes, barbering, blacksmithy, carpentry, etc., wherein a semi-annual payment of grain is made. Fifty-one specialists, or *purjans*, serve these eighty-one families and all of them reside in a total of only five villages which are inside a radius of two miles. In all instances it is a matter of a specialist *family* maintaining a perpetual service relationship with a patron *family* which, on both sides, is handed along from father to son as an aspect of the normal system of descent within the kinship units involved. Certainly such an arrangement crucially circumscribes the range of variety inherent in the interactions among villagers within a major section of the economic configuration upon which they rely. It is in marked contrast to Lucknow rickshawallas who reside in all portions of the city, on the one hand, and who, on the other hand, ply their trade over a very considerable area during the course of which they are in contact with a great variety (both occupationally and spatially) of persons. Furthermore, the rickshawalla sample indicated virtually no involvement in particularistic economic relationships of the kind which, in villages, fixes so rigidly the scope of interaction. In another sense, too, they reveal a heightened tendency toward freedom of movement: They tend to marry less frequently than villagers. Only forty-six percent of the rickshawallas were married whereas eighty-five percent of their comparable age-group in the village (12-50) were. For them, occupational activity is not connected with maintenance of a corporate kin group through which *access to work* is determined.

Evidently, then, caste ceases to have much formalized relevance for occupational roles in the city. But this does not mean that it ceases to have relevance of another kind with respect to occupations, nor does it cease to have relevance for certain other systems of interaction which are of crucial significance to the city resident.

Among the fifty Lucknow rickshawallas interviewed, twelve Hindu castes plus Muslims are represented and these range from the purest, Brahmans, to such deprecated groups as Kori and Luniya. All toil together in this single occupation and are daily rubbing shoulders with each other and with the great variety of humanity in addition. Groups or cliques of rickshawallas form at different strategic places in the city and at any given spot the clique may run the gamut of ritual purity. At one such place, the "regulars" include representatives of Brahman, Rajput, Jaiswara, Kahar, and Valmiki Hindu castes plus Muslims. They fraternise openly in gossiping groups, smoking groups, card games, jostling sessions, and the like. And they will at times join together to exclude from their station an "outsider" rickshawalla who seeks to operate from there.

Thus, as far as occupation and type and place of residence are concerned, rickshawallas form a category of the general class of *chhote-chhote kam karnewale*. As such, a Brahman or a Rajput in his day-to-day social intercourse is going to interact more frequently with a Luniya of comparable status than he is with a fellow Brahman who is college-educated and holds a job as an "executive" in a local business enterprise.

But it has been clearly shown by Srinivas (1957), Pocock (1957), and many others that caste nevertheless occupies a place of importance in the modern urban environment. However, a distinction is made between caste as a system of functionally and ritually differentiated and interrelated groups and caste as a more general social category. The former is hardly possible to any meaningful degree under the *achievement-oriented* situation which prevails in the occupational sphere of the modern industrial civilization. Neither Lucknow rickshawallas nor business and professional elites could indicate any respects in which caste functioned for them in a sense comparable to the manner in which it functions in the village. They did not think of the obtaining or dispensing of goods and services as being in any respect formally connected with intercaste specialization.

Yet, both the socially high and the socially low knew their caste and unhesitatingly asserted that marriages are and should be caste-endogamous. I have so far recorded no case of a marriage which violates the *general* injunction against caste endogamy, although it seems possible that some of the narrower sub-groupings which would be a basis for endogamy in the rural areas cease to be in the city.

Where does the basis for this durability of the endogamous feature of caste lie? I would suggest it lies primarily in the kinship group where certain functions are still important which are reinforced by a concept of caste endogamy. What has been removed from the sphere of kinship control by movement from village to city are occupational and economic activities which are rooted in the urban division of labor. The bases of economic interaction in the latter are the impersonal market and the ability to take advantage of its opportunities for material gain through technical skill (part of which, perhaps the most important part of which, is obtainable through formal education in the broad sense that includes both learning and training). Money is the predominant medium of exchange rather than grain (as in the rural, localized social system of the peasant farmer) and acquired abilities rather than "inborn" ones are the criteria of performance and reward. A morally intrinsic concept of occupational stratification fosters social and economic efficiencies in the non-industrial civilization (given its technological base) but inhibits their attainment in the industrial civilization (with its very different technological base).

But clusters of kin groups ranked according to a morally intrinsic concept of valuation and kept endogamous on that account have a definite utility for the attainment of nepotic ends in Indian society as it exists today—in transition between the non-industrial civilization and the emerging industrial order. They also continue to serve useful functions in the realm of the preservation of religious cohesion by keeping alive the concept of the patrilineal kinship group as a basic sacrificial structure through which the unity of past, present, and future is sustained. In many respects, that is, caste under contemporary conditions is a way of conserving and protecting interests and values in the face of the impersonalizing

tendencies which are a fundamental consequence of the industrialization process.

In the job market, a caste tie is a kin tie at best and an extension of the logic of kinship ties to a wider circle at the least. And whereas, on the one side, the kin tie is restrictive it is, on the other side, obligational—which means that it can be the basis for circumventing purely technical criteria of entitlement to occupational mobility. In this sense it is akin to the “old school tie” and the “fraternity brother” or “lodge brother” so common in the West. Perhaps the added advantage of the caste tie is that it is invested with a great measure of sacred significance as well. As in the West, it is one answer to the impersonalization-bred “characterological” problems of ‘alienation’, ‘loneliness’, and ‘authoritarianism’ about which Fromm (1947), Adorno and his associates (1952), and Riessman (1950) have written so eloquently. Furthermore, in my studies of mobility so far, I have found that most peasants who migrate to the city do so along avenues laid out by kinship ties in the narrow sense and caste ties in the broader sense. One feature of this pattern which has struck me particularly is how almost any kin tie on the basis of which an obligational claim can be made is used for the purpose of establishing a personal (i.e., ‘dependable’) relationship which bridges the gulf between village of origin and city of destination. If none other is available, a wife’s sister’s husband’s household may impel a young Kori in ‘Sherupur’ to make Ludhiana the city of his initial ‘penetration’ into the urban world of pecuniary opportunities. The quest for a personal tie overrides all the usual distinctions between affine and consanguine, lineal and collateral, relative once the peasant steps beyond his rural environment.

Caste, then, ceases to be a ‘system’ in the sense suggested by Bougle (1908), Pocock (1957), Miller (1954), Leach (1960), Srinivas (1957), Majumdar (1959) and so many others—that is, a localized hierarchy of occupationally specialized and ritually differentiated groups oriented to local Brahmans—but comes to operate as a kind of social interlacing within the emerging industrial civilization.

At the same time, it would appear unnecessary to choose between caste and the caste system and say that one or the other is more permanent, more relevant, or more true. The nature of present Indian society makes it possible to affirm that *both* phenomena are vitally operative in their appropriate context. Not only this, which after all is fairly obvious, but I think that the peasants who have most recently migrated into the city and who still have ongoing kin groups in the village carry in their minds both aspects of caste and employ them interchangeably as they alternate from one environment to the other. At this stage of the transitional process, in other words, it is not as much giving up one pattern of behavior and assuming another as it is a matter of adding a new structure to an already existing one and employing each where it has relevance.

Let me illustrate this by looking at urban-migrants’ relationship to the division of labor in the village and the city respectively,

both from the vantage of a village community which has given migrants to the city and from the vantage of an urban occupational category whose practitioners have roots in villages. These will, of course, once again be the people of Sherupur and the Lucknow rickshawallas.

OCCUPATIONAL PATTERNS OF SHERUPUR MIGRANTS.

Caste	Traditional Occupation	Village Occupation	Extra-Village Occupation
Brahman	Priest	Agriculture	Land Manager Employee of Baniya
Thakur	Warrior-Ruler	Agriculture	RR Switahman Ekka driver Factory laborer Army Store clerk Gov't Farm laborer
Kayastha	Accountant	Agriculture	RR clerk Mason
Ahir	Dairyman	Agriculture Dairying	Gov't Dairy Railway coolie Store clerk Coal miner Dairyman Ekka driver
Kurmi	Agriculture	Agriculture	Gov't Farm laborer Yogi Cowherd Machine operator Weaver
Murau	Agriculture	Agriculture	Store clerk RR Signalman Apprent. mechanic Gov't Farm laborer
Sonar	Goldsmith	Goldsmith	
Lohar	Blacksmith	Blacksmith Agriculture	Gov't Farm laborer
Kahar	Water carrier	Roasting grams Menial labor	Coal miner
Kori	Weaver	Agriculture Farm labor Removing carcasses Midwifery	Farm laborer Rickshawalla Manual labor Ekka driver BA student
Chamar	Leatherwork	Agriculture Removing carcasses Midwifery Leather work Farm labor	Farm laborer

Cast	Traditional Occupation	Village Occupation	Extra-Village Occupation
Gadariya	Goatherd	Agriculture	Gov't Farm laborer Ice-plant worker
Muslim	(No special)	Tailor Agriculture	Rickshawalla Tailor

In all the above cases we have represented individuals who have alternated or are now alternating between their characteristic village occupation and their urban calling. The two seem not to contradict each other in the sense that even though technically Sherupur families of Thakurs, Kayasthas, Muraus and Ahirs have in common the (extra-village) occupation of railway employee, they do not claim equal ritual status within the village. Their extra-village job is one thing, part of one world, and their intra-village status and occupation are quite another, part of a different and distinct world. Just as the nature of the non-industrial civilization involves a symbiosis between distinct urban and village entities, so for the individual who straddles the modern imperfect representations of the worlds each of these entities represents must sustain a dual set of values and behavior patterns.

We can observe the same phenomenon in reverse order in the case of the sample of Lucknow rickshawallas.

OCCUPATIONAL PATTERNS OF SOME LUCKNOW RICKSHAWALLAS

Caste	Traditional Occupation	All Urban Occ's Given by Rw for self or Kin	Village Occupation	Location of Village
Brahman	Priest	Food seller Cook	Agriculture	Gonda Sultanpur
Thakur	Warrior-Ruler	Laborer Hotel bearer Brick layer Servant Servant Pantry work Hotel bearer Army Chaprasi Clerk	Agriculture	Nepal Gonda Almora
Kurmi	Agriculture	Factory laborer Lohar Mechanic	Agriculture	Basti
Muran	Agriculture	Mali Chaprasi	Agriculture	Gonda

Caste	Occupation Traditional	All Urban Occ's Given by R w for self or Kin	Village Occupation	Location of Village
Jaiswara	Leather	Kitchen work Bearer Laborer	Agriculture Farm laborer	Azamgarh Faizabad
Kahar	Water carrier	Chaprasi	Agriculture	Faizabad
Kori	Weaver	—	Agriculture	Lucknow
Kumhar	Potter	Laborer	Potter Agriculture	Faizabad
Muslim	(no special)	Laborer Hotel chaprasi Tonga driver RR Fireman Truck driver Bicycle mechanic Cook Box maker Carpenter Hawker Tailor Kite maker	Carpenter Agriculture Darzi	Lucknow Gonda Garakhpur Etawah Allahabad Unnao Hardoi

Once again we can see illustrated the point that the relevance of occupational specialization to caste depends upon the setting. There is not a simple tendency for new castes to form in the urban area based upon its distinctive division of labor as some people have claimed. A caste of rickshawallas has not formed in Lucknow, nor a caste of chaprasis, nor mechanics, etc. Caste simply fails to be an operative factor for such occupations or indeed any occupations in the city (except for Dhobis and a few others whose services are still rendered on a familial basis)*. Caste persists only in the respects in which status determinations can be made within the context of kinship structure. When ego is living in the city, his occupation is not embedded in his kin group; when he is living in the village it is. For in the latter, ego's kin group is an occupationally and ritually specialized unit which forms with other kin groups a component of the local caste system.

The question arises as to who decides to straddle the two worlds. Who takes the first step toward potential alienation from the non-industrial pattern of life and why?

I am not in a position to give any real answers at this juncture, but only to make some very tentative suggestions. It has been widely held that changed economic circumstances create the conditions which lead to peasant migrations. Bailey (1958) has shown how a point is reached in the partition or other forms of alienation of land where a family has to start selling land for the bare necessities like food and clothing. When this happens, Bailey believes that the days of a family as peasant proprietors are numbered and that other sources of income than land must be sought. Naturally,

* And certain business castes like Khatris.

entering the urban job market is a major recourse under such circumstances.

There can be no doubt that the demographic, pecuniary, and other effects of industrialization produce such crises for peasants on a growing scale. But evidence from Sherupur suggests the need for a careful, detailed look at this process because the "point of no return" for a family with regard to commencement of the search by any of its members for urban employment may vary with caste status and other factors. For example, the socioeconomic level and ritual standing of a caste would seem to be of great importance in determining when a feeling arises that the "point of no return" has been reached which necessitates urban job-hunting by the members of a family. The evidence on which this statement is based, however, is as yet fragmentary and the whole notion may have to be changed or abandoned later on. But if two castes in Sherupur for which fairly good data are available are any criterion, then the definition of the moment when fortunes have deteriorated sufficiently to induce urban migration must vary extremely widely. A comparison has been possible between families of the Kurmi and Kori castes who respectively did and did not have members who are or had been urban migrants. For each caste, two sets of factors were compiled: The average land-holding of families in each category and the average of their respective estimates of the number of months of food they derive from their lands.

AMOUNT OF LAND AND FOOD ESTIMATES OF TWO CASTES IN SHERUPUR

Occupational Situation	Kurmi			Kori		
	Chulas N	Kachha Bighas	Months Food	Chulas N	Kachha Bighas	Months Food
Entirely in village	10	25.0	7.7	10	2.6	1.8
Members outside	12	16.6	6.4	6	1.4	1.0

In terms of land-attribution and food-security, the average Kurmi family seems to feel its standard of life and levels of aspiration cannot be satisfied within the village when land holdings sink beneath twenty *kachha bighas* and food expectations from land reach the vicinity of six months. Koris, on the other hand, are showing no strong tendencies to leave the village when in possession of no more than two-and-a-half *kachha bighas* with only two months or so food guaranteed them; but by the time losses have reduced their holdings below a *kachha-bigha-and-a-half* they are beginning to reach beyond the peasant community and into the pecuniary world of the city in search of supplementation. It must be remembered that in both cases we are dealing with kin groups who, in the case of migrants, have members working in the city while the preponderance of their relatives are remaining in the village. In this situation we appear to have something approximating the germinal economic condition which sets in motion, in India at least, the initial movement of peasants into the city.

Further research will be needed before deeper insights into the process are obtained, especially into the interpersonal component. For we eventually arrive at the problem of what psychological patterns within the kin group determine, once the wider socioeconomic conditions emerge, which individual or individuals are selected to make the break and go into the city. Obviously, patterns of interpersonal conflict are crucial factors in this, and I have data from both village and urban informants which suggest that very often he who departs is one who has fallen into conflict with his fellow kinsmen (especially the father or the brother). But this is a very general observation and to go deeper requires minute investigation of the psychic interactions of some families who have entered into the industrial civilization in the form of giving migrants to it and then comparing them with families who have as yet given no migrants.

We must remember also that it would be fallacious to assume that a dichotomy exists between "harmonious" fully peasant families and "disharmonious" migrant-giving families. All families are *personal communities* within which psychological dynamics are in constant operation, and under all conditions these include problems of frustration, displacement, neurosis, psychosis, etc., and mechanisms for dealing with them. The real questions are how and when does this inner psychological dynamic of the *personal community* incorporate into its structure the element of displacement of members outward into the industrial civilization as an aspect of attempting to deal with tensions.

Obviously, here is the connecting link between socioeconomic and psychological dimensions of the anthropology of industrialization. Future investigations must cast light on this issue. It is easily possible to demonstrate that no such simplistic social structural explanation, divorced from consideration of the role of the *personal community*, as Le Play's *famillie souche* (that is, the elder son remains with the parents while younger sons migrate) is really adequate for our needs. Such a view is not actually an explanation at all but merely a component of one which speaks only of a general relationship between economic change and modifications in traditional social structure. Exceptions abound and prove as interesting as the rule, as the data from Sherupur and Lucknow rickshawallas indicates.

KINSHIP STATUS OF PEASANT
MIGRANTS

	Sherupur		Lucknow	
	N	%	N	Rw %
Where parents are alive				
Fathers only	7	18%	2	7%
Father and son	2	5	1	4
Only son	—	—	4	15
Elder son only	10	25	5	19
Junior son(s) only	2	9	2	7
Elder son and one or more junior sons	3	8	4	15

Where parents are deceased	Sherupur		Lucknow Rv	
	N	%	N	%
Elder brothers only	2	5%	4	15%
Junior brother only	7	18	4	15
Elder brother and one or more junior brothers	6	15	2	7
Totals :	39	99.0	28	100.0

The foregoing shows that a great variety of combinations take place respecting urban migrations, combinations which can only be explained in part with economic and cultural generalizations. One sociological pattern which seems to be strongly manifest, however, is the preponderance of "senior" family members who are involved in migration—that is, persons who are in the category of fathers or elder siblings. Thirty of the thirty-nine *chulas* in Sherupur who have migrant members show this tendency as do twenty-two of the twenty-eight rickshawallas' *chulas*. And this pattern, incidentally, is diametrically opposed to the *famille souche* notion.

In psychological or interpersonal terms, it might be hypothesized that there is a level reached in the economic life of a peasant family where all of the labor at its disposal in the form of resident kin are no longer economically employable within the family's property domain. Before this occurs, the typical corporate unilineal family that is the productive base of the non-industrial civilization, being relatively sufficient unto itself, is able to absorb the shocks and tensions generated by the interplay among its divergent personalities. The authority of the patriarch and his surrogates, the reinforcements supplied by the tightly-knit village community, and the unfeasibility of "escape" from the local scheme of life combine with the economic vitality of the family to hold dissention down and to channelize it when it occurs into tradition-satisfying activities. But the economic changes brought about by industrialization upset this pattern. Conflicts can be acted out in entirely new terms. The city is a center of 'anti-tradition' where local authority in all its forms can be evaded. Internal family tensions get projected into an emerging setting which is yielding explosive population increases, ever more atomized concepts of property relations, and ramifying pecuniary standards of value and taste. Under these conditions, surplus members begin to be drained off into extra-familial, extra-village environments in accordance with the dictates of the opportunities newly presented, on the one hand, and the selective implications of familial interpersonal relations, on the other.

Thus, a major research problem for the anthropologist of industrialization is to see how and when the pendulum swings and at precisely what points the individual members of kin groups begin turning to these new pathways for solution of their interpersonal tensions. This inquiry is going to require much close observation of people in both the village environments and the various environments which the urban division of labor in the emerging industrial civilization creates for the migrant.

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POSSIBLE ORIGIN OF THE BHUNJIAS AND THEIR ETHNIC RELATIONSHIP : A NEW HYPOTHESIS

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The tribe of Bhunjias living in the Bindranawagarh and Dhamtari tahsils of the Raipur district of Madhya Pradesh and adjoining territories of the Jeypore and Khariar districts of Orissa state have been regarded in Indian Anthropology up to this date as a branch of the Bhuiya tribe of Chhota-Nagpur and ethnically the same as the Baigas and Binjhvars of Madhya Pradesh and together with these tribes similar to the Bhuiyas of Chhota Nagpur.¹ With this view, the present author is not in agreement and puts forward a new hypothesis regarding the origin and ethnic relationships of the Bhunjias.

The present hypothesis is based on five tenets:—

- (a) Mythological
- (b) Historical
- (c) Geographical
- (d) Linguistic and
- (e) Anthropological

These five tenets are described in the paragraphs below and they are inter-related to one another in the respect that the one proves the other.

Mythological Tenet :—

In the good old days, the Halbas and the Dhakars were in good books of the chief of Bastar, the Dhakars were the ministers of the king and the Halbas also occupying quite an exalted position. But the Halbas were rather jealous of the Dhakars and used to misinform the king about them. This jealousy between the Halbas and the Dhakars was in no way good for the state as the saying goes—

‘ Dhakar mantri, Halba jujhar,
Bastar raj la kare ujar.’

(Dhakars are the ministers and the Halbas are the back-biters and mischief-mongers and both are destroying the State of Bastar).

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1. (a) Report on the Land Revenues Settlement of the Raepore District, Chutteesgurh Division, Hewitt, 1869, p. 37.
 - (b) Report of the Ethnological Committee, Hewitt, p. 116 (as quoted in the Census Report, 1891, p. 190).
 - (c) Census of India, 1891, Vol. XI, Part I, p. 190, pp. 142-143.
 - (d) Census of India, 1891, General Report, J. A. Baines, 1893 p. 194.
 - (e) Tribes and Castes of the Central Provinces, Russell and Hiralal, 1916, Vol. I, pp. 65-68 ; Vol. II, p. 311, 313, 322-328.

The Halbas ultimately succeeded in their attempt and were able to arouse the wrath of the king against the Dhakars. The king ordered that the Dhakars be put to death and as a result of this order many of the Dhakars were hanged from the trees. The Dhakars however were innocent and they were an intelligent lot. They soon came to know about this mischief of the Halbas and convinced the king about their bona-fides. The anger of the king then fell on the Halbas with an increased degree and a number of them were hanged from the trees. The Dhakars were bent upon seeing the Halbas punished in as large a number as possible.

To save their lives, the Halbas ran out of the Bastar state and came down to Nawagarh raj (the present Bindranawagarh). To conceal their identity, they had started calling themselves Chindas while in flee. These refugee Halbas or the Chindas established themselves in the central part of the Nawagarh raj.

After some time a Gond Chief came to this region with his followers and seeing the very sparsely populated country with considerable scope for the *dahya* cultivation settled himself near the present village of Paragaon. The name of this Gond chief was Singhal Shah. The Chindas did not like this intrusion of the Gonds in this territory and after some battles treacherously killed Singhal Shah, whose wife Gangi was pregnant at the time. She ran away to Khariar where she gave birth to a male child in due course. This child came to be known as Kachna Dhurwa. In his youth Kachna Dhurwa returned to Nawagarh raj to avenge the death of his father and accidentally killed a large number of the Chinda chiefs in the cave of Nawagarh hills by burning them inside the cave. Very few of those Chindas who were inside the cave could run away. In a series of battles which followed, some of the Chindas joined the Gonds against their own tribe and the others were defeated and they retreated to wild interiors.

Historical Tenet :—

The first tenet of this hypothesis raises certain issues which need proof before they can be accepted as of any use. Till then the story cannot be believed. The story given above is however put to a test historically.

Kachna Dhurwa is not a legendary figure though in Bindranawagarh now he is being regarded as such and is almost deified. Kachna Dhurwa was the ancestor of the zamindar of the Chhura or Bindranawagarh zamindari. According to the geneology traceable, Kachna Dhurwa was the great-great grandfather of Nagendra Shah, who was the zamindar at the time of its abolition in 1951. The geneology given below shows in a simplified form the relationship of Kachna Dhurwa with Nagendra Shah—

Singhal Shah
|
Kachna Dhurwa
|
Bhog Shah
|
Ratan Shah

Chhatra Shah

Negendra Shah

Unfortunately the exact period of the tenure of these zamindars is not available now and the present descendants of the zamindar family are not able to throw any light on the geneology and the periods of their ancestors. In view of this the exact period when Kachna Dhurwa lived cannot possibly be fixed with any degree of accuracy.

Two clues are however available to us : (a) That Nagendra Shah was the zamindar of Chhura at the time of the abolition of the zamindari and that he was aged about 50-52 in 1951 and (b) that Chhatra Shah had just attained majority at the time of the settlement of the zamindari in 1901¹. On the basis of these two clues, a rough but a reasonable guess can be had to show that the date of the birth of Kachna Dhurwa may be 1780-1800.

Another point raised in the mythological tenet which requires historical verification is the running away of the Halbas of Bastar in order to save their lives. The history of Bastar tells us of a rising of the Halbas in the reign of chief Daryao Deo "who flung many of them down the Chitrakot waterfall on the Indravati river, only one man escaping with his life."² "The eyes of some were also put out as a punishment for the oppression they had exercised."³ A stone inscription at Dongar in Bastar State records the oath of fealty taken by the Halbas before the image of Danteswari, the tutelary deity of Bastar after the insurrection was put down in the year 1779.⁴

Thus the history proves that the Halbas of Bastar were hanged or killed otherwise in great numbers in the year 1775-79. It further proves that the gond hero Kachna Dhurwa might have lived in this region in the period 1780-1800.

The points made out in the mythology which remain to be proved are :—

- (a) Whether the Halbas ran away out of Bastar State and came down to this Bindranawagarh zamindari area (then Nawagarh raj).
- (b) Whether Kachna Dhurwa roasted and killed the Chinda leaders and followers in the cave of Nawagarh hill.

Both of these above points shall be dealt with in the geographical and the anthropological tenets of this essay. But here it may be presumed that under the circumstance, it would be a normal human conduct for the Halbas to run out of Bastar State. With this presumption, we enter the third tenet of the hypothesis.

1. Report on the Land Revenue Settlement on the Zamindari Estates of Raipur District, 1899-1902, J. R. Scott, p. 10.

2. Chhattisgarh Feudalory States Gazetteer, 1909, p. 45.

3. Tribes and Castes of the Central Provinces, Russell and Hiralal, Vol. III, p. 185.

4. Ibid., p. 185.

Geographical Tenet :—

Once it is taken for granted that as a normal human being the Halbas would decide to escape from the State as early as possible, it becomes easy to discover the possible route open to the fleeing Halbas in their running away. As already stated the punishment that was being inflicted was that of throwing them down the Chitrakot waterfall. It appears from this that the place of the rising was in the vicinity of the waterfall. If this is true, then the shortest course out of Bastar State would be to the east or the north-east and this was the course of escape adopted by the Halbas. They followed a roughly north-east course and came to the south-west portion of Bindranawagarh from where they moved to the central portion. The illustrative map given would justify this presumption. (Map No. 1).

That the fleeing Halbas took this line of escape is also supported by the fact that this was the course which the Muria Gonds of Bastar have taken in a subsequent period to come to Bindranawagarh. These Murias now live in an area just by the side of the Chinda Bhunjia territory. (Map No. 2)

There is one more point and that is the identity of names of nalas or rivers in Bastar and Bindranawagarh Bhunjia terrain. The refugee Halbas who came to Bindranawagarh have given similar names to these natural features. An example is the Indrawana nala of the Chinda Bhunjia country and this name is very much similar to Indrawati river of Bastar. The Indrawan nala like the Indrawati river of Bastar has a waterfall and the presumption would not be very far-fetched that the Halbas have given this name to the nala in imitation of the river in their parent country.

Linguistic Tenet :—

The thesis that the Bhunjias of Bindranawagarh and other adjoining territories are related to the Halbas of Bastar also gets support from the fact of similarity of the Bhunjia and the Halbi language and Bhunjia language has been classed as a sub-dialect of the Halbi of Bastar. This similarity in language also substantiates the view being developed in this essay.

Anthropological Tenet :—

This is the most important tenet of the present hypothesis and read with the other tenets described above fully proves the following points :—

(a) Etymology of the term Bhunjia

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1. Index of Language Names, Linguistic Survey of India, p. 28 Linguistic Survey of India, C. P., Grierson, 1898, Linguistic Survey of India, Vol. I Pt. I Grierson, 1927 Census of India 1921, Vol. XVIII-A, Pt. II pp. 174-175 Census of India, 1921, Vol. XI, Pt. II, p. 91.
Census of India, 1931, Vol. XII, C. P. and Berar, Pt. II, p. 351.
Census of India, 1931, Vol. XII, Pt. I, pp. 305-306.

- (b) The origin of the terms Chinda and Chaukhutia (which are the names of the two sub-types of the Bhunjias)

Etymology of the term Bhunjia :—

The meaning of the word Bhunjia or the etymological origin of this term has not been explained by any worker so far. The story given by Russell¹ tries to explain the meaning of the term Chaukhutia, but the question still remains as to why at all the tribe should be called 'bhunjia'. The mythology given in the earlier pages of this work explains the origin of this term. The term 'Bhunjia' is derived from the word 'Bhunja' or to roast in fire and on this basis the meaning of the word Bhunjia would be 'the roasted ones'. This is precisely what Kachna Dhurwa did to them in the cave of the Nawagarh hill. Thus the etymology of the term Bhunjia supports the mythology.

Origin of the names of the two sub-tribes :—

The Bhunjias are divided into two sub-tribes, the Chinda Bhunjias and the Chaukhutia Bhunjias. How has the tribe come to divide itself into these two sub-tribes which are quite different from each other and live in different areas and how have the sub-tribe names come into vogue is a mystery so far, because there is nothing in the existing folk-tales or songs to suggest this.

The tenets described above point to the fact of the Halbas running away from Bastar and coming to Bindranawagarh. It is further shown that these fleeing Halbas called themselves Chindas to hide their identity. That these Chindas are the same as the Halbas is proved by the fact that 'Chinda' used to be one of the 'gots' of the Halbas². This fact has been mentioned by Sherring and Hewitt. It is however a fact that in a later book 'Chinda got' has not been mentioned in the description of the Halbas. This is not very surprising because nearly half a century elapsed between the writing of Sherring's book and that by Russell and during this time the Halbas underwent a tremendous transition. In the next 40-45 years, that is between 1916-1959 the Halbas further underwent transition and are not regarded as a scheduled tribe at all. This transition had set in even in the beginning of this century and it is not surprising to see that the *got* name was forgotten by the Halbas. In view of the authority quoted, the present writer has regarded Chindas as a branch of the Halbas. This proves the point brought out in the previous tenets. It also suggests a genesis of the name for the sub-tribe of the Bhunjias.

The other sub-tribe is that of the Chaukhutias and there are two views in the existing literature about the meaning of this term. The first view is that by Russell according to whom³ the word

1. Tribes and Castes of the C. P., Russell and Hiralal, Vol. LL pp. 322-328.

2. Report on the Land Revenue Settlement of the Raepore District Chhutteesgarh Division, Hewitt, 1869.

Hindu Tribes and Castes, Sherring, Vol. II, p. 147.

3. Tribes and Castes of the Central Provinces, Russell and Hiralal, Vol. II, p. 323.

Chaukhutia means a bastard. The other explanation of the term has been given by Dube¹ who derives the origin of the word Chaukhutia from the word 'chokha' meaning pure. Now both of these explanations are opposed to each other. Both the explanations have however their own weaknesses. Russel's view is based on a story which cannot stand the test of enquiry and it cannot be believed except as a story. It again fails to answer the question as to why should the off-spring of a Gond-Halba union should be called a Chaukhutia Bhunjia and not Chaukhtia alone, and in what way the Chaukhutias are related to the Chinda Bhunjias whose mention the story does not make anywhere. The explanation given by Dube also does not present any clue to the division of the two sub-tribes or as to why should the Chaukhutias regard themselves as the pure one.

The origin of these names and the division of the Bhunjias is however explained by the present writer in this tenet of his hypothesis which read with the earlier tenets fully account for the meaning of the words. It has already been shown that the Chinda Halbas (calling themselves only Chindas) had to wage a war against the Gonds led by Kachna Dhurwa and in this war, battles after battles they were driven into wild interior. A section of these Chindas, who after the Nawagarh incident of roasting and burning, were already being called Bhunjias, betrayed their own brethren and fellow-men and joined hands with the Gonds. It is this betrayal which has earned them the name Chaukhutia which means a bastard.

That this section of the Bhunjia tribe, which is now known as the Chaukhutias betrayed their own tribe against the Gonds is also supported by the fact of the geographical distribution of the two sub-tribes. The Chaukhutias moved with the Gonds from the Nawagarh hill areas towards the Chhura region where the Gonds had established the capital of their zamindari. The Chaukhutias are found in the Kodopali-Baghmar-Chhura region only and in no case south of the river Pairi except in Tewari which village has attracted them in a very recent period.

Thus it is here that we get a historical perspective of the story given by Russell. The Chaukhutias were the bastards and the off-springs of the Gond-Halba unions. Such a union would not be an uncommon feature between the Gond soldiers and the Bhunjia women (Habla women). This also explains the meaning given to the word by Dube. It is precisely for this blur on their progeny that these people started calling themselves 'pure'. It is however certain that the meaning imparted by Dube is of a fairly recent origin and is just an attempt of these people to erase out the memory of their betrayal and of their impure breed. Russel's story gives one more point of support to the present theory and that is that it tells us of the origin of one branch of the Bhunjias as having been originated from the Halbas.

Thus this anthropological tenet is able to explain the origin of the two sub-tribes and the names of those branches. As proved

1. Inter-relation of Tribes, S. C. Dube, 1950, Man in India, Vol. 30 No. 2-3, p. 73.

by this the Chaukhutias are the Chindas who betrayed their own tribe against the Gonds. It also explains the meaning of the name of the tribe.

That the Bhunjia tribe is a fairly recent one is indicated in the Census Report of 1931. This report states : "In regard to one tribe mentioned—the Bhunjias—there is a legend of their origin quoted by Russell which indicates that the Chaukhutia branch is descended from a union between a Halba and a Bhatra and does not support the claim of the antiquity of this tribe."¹ It is interesting to note here that on the same page a mention is made about other tribes as below : "The Gonds, Kamars and Halbas are described by Mr. Waterfall as outsiders who have been domiciled in the zamindari before historic times."² Absence of the name of the Bhunjias is rather significant here and it suggests that they have come to the zamindari in the historic times.

THE HYPOTHESIS.

It is on the basis of the above-described tenets that the present writer has come to a conclusion regarding the possible origin and the ethnic relationships of the Bhunjias and which conclusion is being presented here in the form of a hypothesis. The writer is fully aware of the fact that parts of the tenets discussed above, are nothing but mere conjectures. But in a work of this nature dealing with the historical reconstruction of a society which does not have any record, conjectures become an inevitability. Majumdar³ has stated : "The available knowledge about the racial composition of India in historic times is equally scanty. There is no definite evidence regarding the natures and routes of migration into India and inside India even after the arrival of Aryans. Therefore all historical reconstruction regarding the racial history of India has to be based on conjectures".

The hypothesis is therefore this :

The small but interesting tribe of Bhunjias living in south-eastern part of the Raipur district of Madhya Pradesh and in the adjoining territories of the Orissa State are not a branch of the Bhuiyas of Chhota Nagpur and are not in any way akin to the Baigas of Balaghat and Mandla districts of Madhya Pradesh. They are on the other hand a branch of the Halbas of Bastar who migrated to Bindranawagarh in about the year 1775-1780 as a result of the severe punishment which was being inflicted on them by the then chief of Bastar, Daryao Deo. Halbas had of course come earlier also in the area but they had established themselves in the north of the river Pairi and they are not the subject of discussion here. The Halbas who came here from Bastar in the period stated above came here as refugees.

Among these refugee Halbas, it was the Chinda branch (*got*) which formed the major number and these migrants had, to conceal

1. Census of India, 1931, Vol. XII, Pt. I, p. 345.

2. Ibid, p. 345.

3. An Introduction to Social Anthropology, Majumdar and Madan, 1957 p. 257.

their identity, dropped the caste name Halba altogether and were known only as Chindas. In Bindranawagarh these Chindas had to wage a series of battles against the Gonds and after the Gond hero Kachna Dhurwa came to this area, he burnt quite a good number of Chinda chiefs in the cave of the hill near Nawagarh (a village 15 miles to the south of Gariaband which is the headquarter of the Bindranawagarh sub-division now). This incident of burning or being roasted in the cave gave them the name of Bhunjia or the 'roasted ones'. A branch of these Chindas (or Chinda Bhunjias) betrayed their own tribe and joined hands with the forces of Kachna Dhurwa. This betrayal earned them the name of Chaukhutias or the bastards because they committed an act of faithlessness against their tribe.

After the battles were over the Chindas and the Chaukhutias moved to different regions—the Chindas retreated to the wild interiors and the Chaukhutias moved with the Gonds towards the village Chhura where the Gonds established their seal. Since then these two sub-tribes are living in different geographical regions and never come together. Some inter-breeding between the Gonds and the Chaukhutias accounts for the difference in the physical features between the Chindas and the Chaukhutias.

Scope for future work :—

The lines of future work on this problem would be to make a study of the physical features of the Halbas, Baigas, Chinda Bhunjias and the Chaukhutia Bhunjias and the Bhuiyas and see if any interesting result comes out. As far as the Halbas are concerned the study of physical features may not be of any avail in view of the large magnitude of inter-breeding which that tribe has undergone as well as the degree of detribalisation. Socio-religio-cultural study of the above named tribes is also contemplated to discover any points of similarity and dissimilarity. A more detailed study of the languages Halbi and Bhunjia would also be necessary to substantiate or discard the views presented in this work. The author intends to complete this study in years ahead. He would be thankful to all anthropologists who offer their comments and criticisms of this hypothesis which, he shall be glad, to answer and incorporate in the bigger task ahead.

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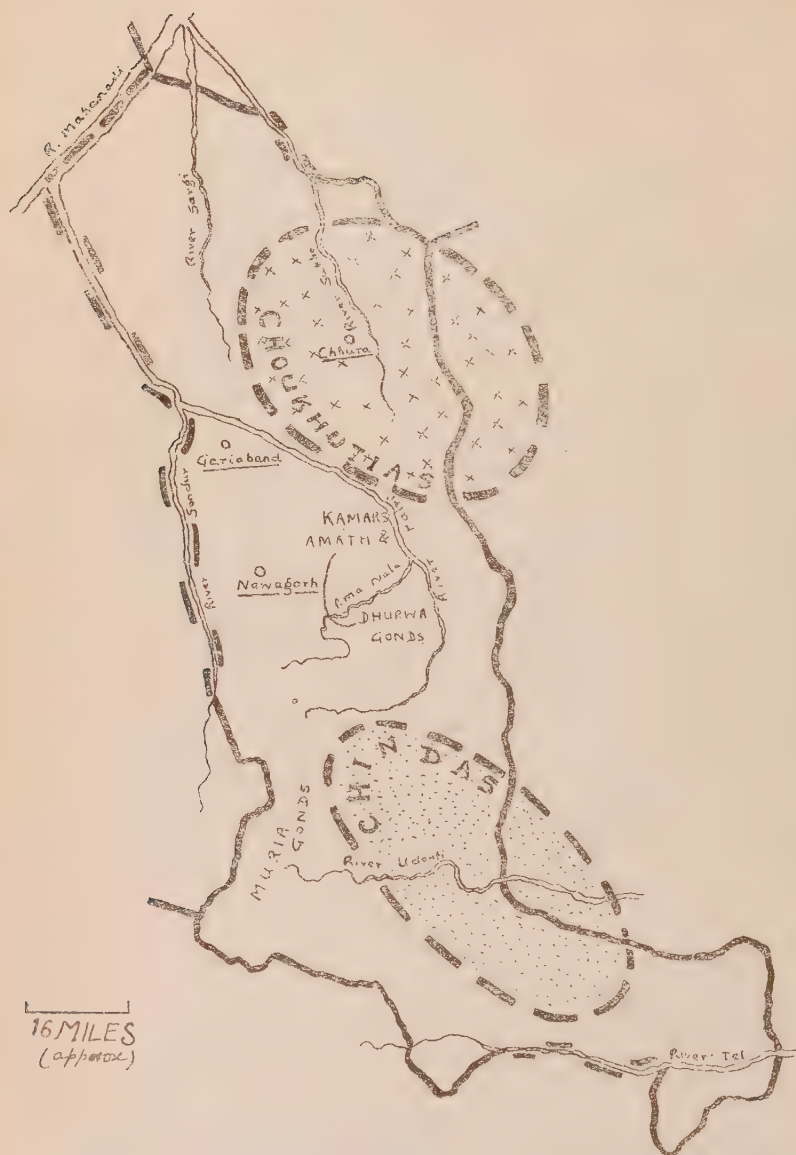
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MAP NUMBER—I



Illustrative Map showing the possible line of migration of the Halbas from Bastar and lines of subsequent migration of the Chindas and the Chaukhutias.

MAP NUMBER—II



Illustrative Map of the Bindra-Nawagarh Tahsil of Raipur Distt., M.P. showing the distribution of the two sub-tribes of the Bhunjias and Gonds and Kamars.

A TENTATIVE THEORETICAL APPROACH TO THE STUDY OF MINORITIES IN INDIA

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There is increasing agreement among social scientists on the conclusion succinctly stated by Robert K. Merton "that one's concepts do determine the inclusion or exclusion of data" and that "data are not 'given' but are 'contrived' with the inevitable help of concepts."¹ This contriving, one need hardly add, is not arbitrary, since it has the increasingly difficult task of providing coherent connections between fragmentary data accumulating in a steady stream of inductive research. The struggle to "make sense" of this convergent mass of materials prompts the theoretician to construct a conceptual framework to eliminate sterile and unprofitable inquiry while channeling further exploration into more productive lines. A theoretical analysis has the undeniable advantage, too, of guiding the investigator when he asks such simple questions as "What am I to observe?" or "What am I to incorporate into my field notes?" or "What may I safely omit?"²

In approaching the study of minority groups, the social scientist cannot therefore be bound by the demands of politicians or leaders of social opinion to give immediate answers to the questions they raise in a popular context. The major responsibility of the sociologist is to his science: he must make certain that his results add to the total body of scientific knowledge and that the interconnection between his findings and those of other investigators remains clear. Attempts to answer *ad hoc* questions by the layman are not enough. At the same time it must be admitted that such practical issues often focus attention on lines of inquiry that extend the borders of scientific analysis. Such, indeed, is the case with the so-called "minority problem" precipitated by uncertainties of public policy.

In approaching this issue the social scientist finds that his first task is to clarify the uses of common terminology too ambiguous and slippery to bear the weight of argument placed upon them. This is notably the case when the average citizen refers to the minority problem: he obviously does not refer to every small group in the nation in raising the question. It is notoriously true among complex societies that each individual, by reason of his restricted place in the social whole, is a member of *some* minority. But the citizen referring to minorities in the usual context seems to mean more than the sheer numerical quality of a group. If this were all, he might refer indiscriminately to the corporate status of a clique,

1. R. K. Merton, *Social Theory and Social Structure*, rev. and enlarged ed., Glencoe, 111., The Free Press, 1957, p. 54, n. 55.

2. Ibid, p. 55.

club, or mohalla—but this is obviously not what he means. Conversely when the Moghuls or the British established domination in India, it was assuredly a numerical minority that ruled a majority, yet the term “minority problem” was never applied to this situation, though on a purely numerical basis, it was eminently fitting.

Perhaps the crucial use of the term “problem” will help to establish the proper restriction of the concept as commonly employed. Not numerical minorities in general but *problematic* minorities are the focus of interest. Assuming this, let us define the concept in terms of the central meaning: “a minority is any group numerically smaller than half the population of a society who by birth, socialization, or both, differ, or are assumed to differ from the majority, and who by reason of this distinction are singled out for differential treatment by outgroups who make major decisions affecting their group status and welfare.”³

Several features of this definition require comment. The central idea is that major decisions affecting the life of the minority group are made beyond its own boundaries. Not only does the minority group lack autonomy (along with other groups in society in many respects), but it is continually made aware of its powerlessness by being singled out as somehow different from more innocuous groups and therefore requiring special treatment. The spotlight of social attention gives it high visibility as a target of manifest dominance. Continual experience of this dependency relationship makes life problematical for the minority as they continually face the questions: “what will *they* think?” or “what will *they* do?”

In the second place, the term “outgroups” rather than “the majority” is set over against the minority. Historically it may well be a ruling clique or monarch who actually determine the status of a minority, even over the opposition of a majority. Under certain conditions in medieval Europe, Jews were given special privileges by kings, and in later British India, Christians not infrequently had similar status. Though the majority may affect the decisions of a king in special circumstances, it will channel its influence more explicitly in a democratic political system. In the latter case, it becomes more meaningful to set the minority over against the majority as the more typical confrontation. However the definition requires a term of sufficient generality to denote any external group whose decisions affect the destiny of the minority; hence the neutral designation of out-groups.

If this definition be provisionally accepted, it then becomes plainly evident that the distinctive feature of minorities, namely,

3. The phrase, “singled out for differential treatment” is originally that of Louis Wirth in his “The Problem of Minority Group,” in Ralph Linton, ed., *The Science of Man in the World Crisis*, New York, Columbia University Press, 1945. Professor Wirth, however, has emphasized the factor of social perception in his definition rather than the dimension of power which is the central element in our own. Note also that there may be occasions when the minority makes a fiction of its relative powerlessness though the realistic situation is quite different. In this marginal case, W. I. Thomas’ dictum would hold true, “If men define their situations as real, they are real in their consequences.”

their lack of relative autonomy, is explicitly a form of domination imposed from without. Essentially the object of study is therefore a power phenomenon and to investigate such data scientifically, it becomes necessary to place them within the framework of power relations as a whole.

Furthermore, the problematic situation exists not only for the minority but for outgroups as well. The latter may regard the minority as so stigmatized, potentially disloyal, or utterly alien that the question of what to do with them is not easily answered but provokes divided counsel. It is not at all uncommon to observe a succession of quite different policies, as in the case of the American Indian. This in turn makes life even more confused and problematic for the minority members as they shift their responses frequently but to no avail and lapse into apathy.

In brief compass, a theoretical framework outlining the significance of power relations in different societies begins with the notion that simpler homogeneous societies achieve internal control through relatively uniform socialization eventuating in a distinctive cultural whole regarded as normative and "right" by common consensus. The obverse of his attitude is ethnocentrism regarding the values of other groups outside their circle of living. Heterogeneity within such a society arises through external contacts, internal differentiation, or both. In the former case, when contacts between two such societies become regular rather than occasional, the resulting interaction crystallizes into a dual social structure of superordination and subordination reflecting the power relations and value congruence of the societies in tensional equilibrium. Typically, one group establishes forms of dominance over the other such as conquest, slavery, or social distance systems so that a new heterogeneity emerges. In the other case where internal differentiation arises from such factors as factionalism, clique dominance, or division of labor, differential value and prestige will be assigned to multiple groups on the basis of societal functions, power configurations, or both. Whether the source of heterogeneity arises from inter-societal or intra-societal processes, the social structure resulting from the interplay of different groups eventually becomes a stratification system in which subordinate groups are assigned a relatively rigid status with restricted mobility. This cluster of status arrangements, once stabilized, tends to persist as a social structure and to attain the same valuational self-evidence formerly associated with a more homogeneous society. Under certain conditions the value justifications (norms of legitimacy) for this arrangement of graded statuses will be internalized by subordinate groups as a form of acceptance. This will be more likely to occur if it has religious or sacred justification.

The stratification system may also be regarded from another angle as an arrangement for allocating social rewards. By its very nature it will distribute these rewards unequally in a multi-group society, but so long as there is consensus on the legitimacy of the system, this will not endanger its stability. Though there may be numerical minorities, there are no problematic ones so long as social norms have legitimacy. Perhaps such a condition is purely abstract,

but for our purposes it is a significant theoretical limit of static acquiescence. The implication is, however, that problematic minorities only arise in conditions of social change where new groups either enter the system, are differentiated within it, or old groups change their position. These changes will highlight the visibility of particular groups in comparison with others and bring about special demands for controlling them. A rapidly changing society will also be one in which the reward system fails to allocate its prizes in the accustomed manner and therefore forfeits its claims to assent. Invidious comparisons fill the air. Groups that are growing rapidly, or "rising too fast" in terms of the old norms, groups whose values and life habits are different from the majority and seem to be a source of disloyalty, newcomers that assume an ill-defined place in the total system, may all become targets for special control. Likewise, groups formerly submissive and acquiescent now become indignant, resentful, openly hostile, or rife with intrigue.

Rapid changes in human society arise from such sources as ideological movements, endemic conflicts, or structural alterations, while combinations of these forces intensifies the process. The first of these is exemplified by the rise of new religious leaders who attract a wide following, the second by civic or communal clashes, and the third by widespread migrations or the introduction of the industrial complex. Revolutions are likely to involve all three elements, and modern warfare introduces both the second and third. Alternative conquest by one power after another brings about structural changes of importance of another kind, though they may affect only the composition of societal elites and leave the masses untouched.

Not only do such changes precipitate the appearance of problematic minorities, they also provide the means for the latter to change their position. Whatever the changes may be, they loosen the social structure in many respects, producing sufficient leeway for new collectivities to arise; these in turn are open enough to be accessible to both dominant and subordinate groups. In democratic societies, for example, there are such collectivities as the diffuse group of citizen voters, rivalry groups like political parties, purposive aggregations or "pressure groups," and affluent bodies like the *nouveaux riches*. These new collectivities furnish changes for members of minority groups to change their orientations, find new fulcrums of influence, and either singly or collectively, to alter the balance of power by making use of novel alignments and coalitions.

This highlights another series of questions. Reference group theory, originating in social psychology, makes it quite clear that the orientations of any group are not confined to hostility or resentment to outgroups. Merton, for example, enumerates three types of reference groups to which behavior is oriented. The first is the normative type that provides standards of behavior for the members of the referring group; the individuals of the latter accept and assimilate the values of the reference group as determinants of their behavior. In the second case, we have the reference group of comparison; in assessing their position, the members of the referring group take the others as point of comparison for their deprivation or gain, recognizing that this is a relative matter. Third is a merely environ-

mental group, considered neutrally and unemotionally as simply a reference group who must be "taken account of" in any action undertaken by members of the referring group.⁴ To these three types is later added the "negative reference groups" which serve to induce not only rejection of their norms by the referring group, but the development of counter-norms as well.⁵

In theory, however, if it is valid to accept such a four-fold classification, there seems to be no reason why new types of reference groups could not be added indefinitely. Lewis Coser, for example, speaks of hostility in an open-class system as eliciting not merely rejection of out-group values but the sour-grapes attitude: "that which is condemned is secretly craved."⁶ Adopting his term we could then add the reference group of *ressentiment*. There would then be every reason to continue the process by including reference groups of compliance, submission, contempt, disgust, amusement, or horror, ad infinitum. What emerges from this discussion is not so much different types of reference groups as a wide variety of *referential relationships* running the entire gamut of human emotions.

Louis Wirth attempted to escape such an impasse by constructing a typology of the dominant aims of minority groups, although his formulation preceded the time when reference group theory had become the current fashion. Thus he characterized the orientations of minority groups to the dominant group as basically of four types: pluralist, assimilationist, secessionist, and militant.⁷ The pluralist asks for the wider society to tolerate his differences; the assimilationist group seeks to merge itself in the dominant group by accepting its values and ways of life; the secessionist minority seeks separatism and withdrawal; while the militant group aims to dominate those who dominate it.

This typology has proven its usefulness in many ways since it enables the investigator to make important primary distinctions when referring to the purposes of minority group members who seek alternative ways of responding to the challenge of discriminatory treatment. Nevertheless there are indications that Wirth's categorization is not exhaustive. How would it apply, for example, to the lower castes in India that adopt Sanskritization to raise their ritual status? There is no question of assimilation here since both lower and upper groups are closed; it is rather an orientation of emulation that serves to raise the relative position of the group in its own eyes in the lively expectation that this claim will be recognized by others in the long run. As for the pluralist reaction, it is almost a form of assertive submission because the group adopting it request, or even demand, that its way of life be respected

4. Merton, op. cit., pp. 283-284. The third type of group was first mentioned by Ralph H. Turner in his significant article, "Role-taking, role-standpoint, and reference group behavior," *American Journal of Sociology* 61: 316-328, 1956.

5. Ibid., p. 300 (From Theodore M. Newcomb, *Social Psychology*. New York, Dryden Press, 1950, p. 227).

6. Lewis Coser, *The Functions of Social Conflict*, London, Routledge & Kegan Paul Ltd., 1956, p. 36.

7. With, op. cit.

by others who have a different set of values, while submitting to the more powerful group in other respects. However there are other forms of submission to domination of different character: some groups will submit to power pressures because they have a respect for power as a legitimate value, while others do so because they find the *other* values of the dominant group congenial to their way of life. In the latter case we may speak of value congruence. But both these forms of submission will occur without the minority group trying to change the situation, as assimilationists and pluralists try to do in different ways. Still another group may adopt a policy of continual harassment or contravention without becoming militant in Wirth's sense of the term.

Another difficulty is that Wirth (and quite frequently the later reference-group theorists as well) focuses attention on the attitudes or orientations of one group in an interaction where at least two groups interact. This tends to give a one-sided picture of what is essentially a reciprocal relationship.⁸ In the last analysis, if assimilation becomes a viable policy, it must be an accepted value for both dominant and minority groups. If one party to the interaction is assimilationist while the other is pluralist, or *vice-versa*, neither policy is wholly accepted nor fully implemented. It is the *interaction* between the two groups that is the center of sociological inquiry, not merely the attitude of one party to the relationship. Likewise the permeability or impermeability of each group (*i.e.*, open or closed to new members) is a factor of crucial importance since it imposes specific limits to behavior and shapes the attitudes of individuals toward the situation. The conclusion is inescapable that the broad and general types of orientation presented by Wirth must be enlarged by continual probing into the more specific relationships which should then eventuate in newer and more adequate typologies in the future. It is too early for predications along these lines.

So far the present analysis has given little attention to intra-group differences in outlook, but this requires the most careful consideration. Differentiation results not only in multiple groupings of differential power and prestige, but also in coreperipheral variations in the cohesion of every group. In Merton's phrase, the "degree of engagement"⁹ for different members of the same group will show a wide range of alternatives. Thus no subordinate group will wholly acquiesce in its subordination nor any dominant group wholly agree on its method of domination. The majority, for example, is not by any means a single cohesive group; quite frequently it is itself a coalition of multiple groups that join together for certain purposes. In like fashion, each minority is a composite of sub-groups or factions struggling for supremacy; often enough these struggles may take place only in the upper echelons with the masses relatively untouched. It therefore becomes necessary to take into account an elite group of leaders, a small band

8. The most significant discussion of this issue appears in Everett C. Hughes and Helen MacGill Hughes, *Where Peoples Meet: Racial and Ethnic Frontiers*, Glencoe, 111, The Free Press, 1952, Chap. 1.

9. Merton, *op. cit.*, p. 311.

of followers for each faction, and a much larger inert mass to whom the former appeal, with or without results. When conflict with outgroups becomes sharp or a crisis develops, multiplicity gives way to unity as the solidarity of the group increases to meet the threat. Sometimes the conflict is purposely stimulated by one of the factions in order to get control of the group's unity—this is what Coser calls a “non-realistic” rather than a “realistic” conflict, though the results may be quite similar.¹⁰

Whatever sub-group differences exist in majorities or minorities, they must not obscure the fact that it is possible for the minority, as a more compact aggregation, to gain more homogeneity and cohesiveness than the larger and more unwieldy majority, other things being equal. Such mechanisms not infrequently appear in political campaigns.

As societies become internally complex, many types of groups are differentiated in such a way as to assume special minority status. The most common ones are :

1. Ethnic groups
2. Cultural and/or linguistic groups
3. Racial groups
4. Religious groups
5. Caste groups

An ethnic group has common traditions and values resulting from close historical association plus a firm belief in common ancestry or biological relatedness, however fictional such an avowal may be. A cultural and linguistic group shares a common language and many cultural values based on its use ; though it may have a long process of close association like the ethnic group, it has less tendency to become endogamous or to dwell on its genetic antecedents. A racial group is one that is visibly distinguishable from others in the population by reason of its physical characteristics, though this has a popular rather than a rational or scientific basis. A religious group has adopted a set of sacred beliefs and practices that set them off as at least significantly distinct from other members of the society. Finally, castes are endogamous groups whose social distance from each other is defined by cultural values, especially the prestige locally attributed to economic, political, or ritual functions. Any specific pyramid of caste groups will therefore depend on historical experiences in smaller or larger regions that affect the range of value preferences for multiple occupational activities in specific contexts.

In many cases these types will appear in permutations or combinations. While the Magyars in Czechoslovakia of 1918-1948 were an ethnic group, the Germans were more clearly a cultural and linguistic group ; on the other hand the Jews in both Europe and America could be termed a combination of 1 and 4, or a religio-ethnic group. In the United States the Negroes form a racial group but the Mexicans or Japanese are racial-ethnic composites, as are the Maoris in New Zealand or aboriginal tribes in India. Some of the Indian border-line tribal groups could also be designated

10. Coser, *op. cit.*, p. 49.

as ethnic-caste or racial-caste aggregations. In the period before 1918, the Poles in Eastern Europe were a cultural-linguistic-religious group, sometimes denoted on the basis of language and at other times on the basis of their Catholicism. Most of Europe's minorities in the twentieth century have been of the cultural-linguistic type, and since they entertained desires for political autonomy, have been designated as nationality groups. Even those members who migrated, abroad to the United States retained this title. The Hawaiian Islands, on the other hand, contain a number of minority groups, chiefly racial-ethnic in type but in rapid process of modification both culturally and biologically. Its case is exceptional in democratic societies because no permanent majority exists; the various minorities now operate singly, now in coalition, but at all times are pervaded by an increasingly benevolent attitude towards assimilation and inter-marriage. The variety of minority situations in different world areas is an important subject for research, though many gaps in the data make systematic comparison impossible at present.

Not only is it necessary to consider the qualitative composition of minority groups and their internal structure, but their continual changes over time as well. The most obvious alteration is the form of growth through natural increase, proselytizing, or immigration. When accretions to such a group are rapid, unexpected, or sudden, it provokes hostility or attempts at control if this expansion is perceived as a real or potential threat to the customary balance of power. Conversely, a decrease or reduction of numbers in a minority group may be regarded with relief, and result in relaxation of power pressures or discrimination.

Major changes in society affecting the position of minorities come about through modification in (1) economic institutions, (2) political institutions, (3) status or prestige arrangements, and (4) value systems. The mutual inter-play of these four variables will have the most crucial effects on the characteristic modes of interaction between minority groups and the rest of the society because they determine the allocation of social rewards. It is this system of social rewards that will necessarily occupy the center of attention in the study of minorities because it is the inescapable matrix for reciprocal relations between groups.

Approaching the minorities of India more specifically, the social scientist faces a complex and difficult problem of selection. Not only is there unparalleled diversity of peoples, tribes, languages, religions, sects, parties and castes, but at the present time there is only a slowly accumulating body of scientifically attested data on which he can build. Initial investment of time and effort must be made with clear recognition of three inescapable facts: (1) First attempts must be on a small scale; (2) Research will rest on fragmentary data and draw limited conclusions; (3) Public opinion is not wholly in accord with such a study, partly because the very term minority has a bad odor, partly because of the fear that frank examination of the issues will revive the bitterness of communalism which many people believe will disappear if they "let sleeping dogs lie," and partly because of the widespread notion that the Indian

Constitution has abolished minority problems by guaranteeing equal rights to all.

To these difficulties the sociologist must respond straightforwardly. He will insist on the value of small, monographic studies as the most feasible preliminary approach for avoiding the superficialities of broad but shallow surveys. *Aller Anfang ist schwer*, and although the data may be scarce, diligent search can uncover quantities of information gathered for other purposes but unexploited by social scientists. Small quota samples can be utilized for tentative formulations that can be tested by later, more large scale investigations. If the theory on which this modest beginning is based has sufficient range and depth, it will disclose more than enough to repay the effort. Again, the sociologist cannot afford to be overawed by public opinion, even though he must be sensitive enough to recognize it for what it means. He may acknowledge that certain terms evoke unpleasant emotions without therefore avoiding them in his scientific work. Had this not been the case, the whole body of knowledge amassed under the rubric of social pathology would never have appeared. As for the assertion that objective studies of touchy issues will make them more touchy, there is very little evidence to support it. It is rather prejudiced or propagandistic writings that inflame social passions. Naturally there is always the danger that scientific conclusions may be misused by partisans, but this has always been the case; it has not and cannot stop the growth of knowledge. Likewise the notion that constitutions somehow guarantee certain rights can hardly be entertained seriously. It is interesting that Indians forget this principle when discussing minority problems in the United States—and rightly so. Undoubtedly the American Constitution also guarantees equal rights—on paper. But the whole world knows that such guarantees do not prevent certain forms of quasi-legal, political, or economic pressure from being exerted on American minorities. Daily scanning of Indian newspapers also makes it quite clear that in India, as in all other nations with a democratic form of government, statements of principles like a Constitution, are ideal norms and not descriptions of actual conditions.

What, then, is the basis for selection in even a brief study of minorities in India? Should it begin with the aboriginals or scheduled tribes, numbering from twenty-two to thirty million people?¹¹ Probably not. Although good monographic studies have been made of many tribes, too many of them are twenty to fifty years old and require contemporary replication. The office of the Commissioner for the Scheduled Castes and Scheduled Tribes has done little or nothing to remedy this deficiency. Another difficulty is that even if the investigator centers attention on the aboriginals, this would devote too much research effort on a particularized segment of the population, *i.e.*, on preliterate whose life

11. The official figure for 1956 is 22,511,854. See *India* 1959, Publications Division, Ministry of Information and Broadcasting, 1959, p. 163. Professor D. N. Majumdar gives the higher estimate of thirty million in *Races and Cultures of India*, rev. ed., Bombay, Asia Publishing House, 1958, p. 376.

habits and culture are out of the main stream of Indian life.

A good case can be made for beginning research on the outcastes or Harijans, perhaps the nation's largest minority with over fifty-five million citizens. An obvious place to commence, perhaps too obvious, would be here. But a curious paradox arises at this point. Though hundreds of articles and books have appeared on the untouchables, the great bulk of them treat this element of the population as a faceless, featureless mass, a kind of victimized X without form, pattern, or internal structure as a group. There is a serious lack of elementary, descriptive research on the total way of life in Harijan communities, and the low rate of literacy among the outcastes has impeded the growth of indigenous self-studies. The writings of Dr. Ambedkar are no exception for they are devoted to issues like civil rights, the place of Harijans in nationalist India, or the functions of Buddhism as a liberating force, but give a very limited picture of daily life among the depressed classes. Though increasing numbers of Harijans have attained higher education, this has served to raise them out of their former status which they naturally want to forget. Therefore they have avoided writing or study of their former communities because of painful memories or because it can expose them afresh to renewed discrimination. Silence becomes their chief protection. The upshot of the matter is a dearth of usable data and the need for ample quantities of time and resources for ethnographic, participant-observer, or community studies. Support for this kind of research has yet to appear.

Cultural-linguistic minorities have a peculiar difficulty of their own. Their plurality is so great and their speech or literature so diverse that only linguistic specialists possess the necessary equipment to begin their investigation. Until such experts are trained in the social sciences, or the social scientists possess the requisite knowledge of linguistics, proper research will reach an impasse. While such ambidextrous scholars may well be produced in the future, the question at issue is how to select a manageable area of research here and now.

The remainder of India's minorities are to be found chiefly in religious groups. On the basis of religion, a clear majority is approximately eighty-five per cent Hindu with all other religions making up the rest of the population. The two largest religious groups in this fifteen per cent are the Muslims and Christians with populations of thirty-five million and eight million respectively.¹² Sociological analyses of these communities is long overdue and is facilitated by the fact that historical studies, records, and intra-communal writings of many types are available for assessment. To begin with the former, the internal life of the Muslim community has been neglected by non-Muslim students since partition and the formation of Pakistan; rumor and hearsay frequently replace knowledge of Muslims, even among educated Hindus. What has twelve years of living cut off from their fellow-believers done to the Muslims of India? What adjustment is their community making to its new

12. *India* 1959, op. cit., p. 44.

political and economic status in independent India? What cross-currents of opinion or ideology are making their appeal or struggling for supremacy? What are the life-chances of educated and uneducated Muslims in an increasingly industrialized India? Probably only a handful of Indians today can give any but the most provisional answers to any one of these questions. Yet the means are available to extend our knowledge in all these areas.

Ignorance about Indian Christians is probably more profound outside of missionary circles. With the exception of a few districts in South India, most citizens have only casual or occasional contacts with individual Christians. News of the Christian community rarely appears in the national press except in connection with some visiting dignitary. Upper class patrons of Christian schools make fleeting acquaintance through their children or maintain a few Christian contacts for practising English as a prestige symbol. Beyond this the Christians, for the most part, are left in splendid isolation living a parallel existence insulated from the larger society. In the villages, relationships are closer, though social distance plays a distinctive and more subtle role under the conditions of rural life. Apart from a few exceptions within the Christian community itself, few if any social scientists have chosen to pursue research in this minority group. As Perin C. Kerawalla has remarked, "The Indian Christian is a closed book yet to the Indian Sociologist,"¹³ and this condition tends to perpetuate itself. Yet the Christian community is highly literate and has produced significant historical and social studies, records, and journals, all of which can provide the social scientist with valuable assistance, if properly interpreted.

One may then suggest that the most feasible starting point for the study of Indian minorities can be made with Muslims and Christians, the two largest of the minority religions. If such research can test and evaluate the body of theory developed above, going beyond the investigation of "community tensions" in a purely psychological framework to a broader analysis of power relations and cultural congruence in a wider social structure, the results may be a first step toward correcting earlier research into minority problems of the American or European variety and furnish the beginning for a wider comparative view based on an Asian setting.

13. Perin C. Kerawalla, *A Study in Indian Crime*, Bombay, Popular Book Depot, 1959, p. 68.

A RADIOGRAPHIC STUDY OF THE OSSIFICATION CENTRES • IN THE FOOT OF NEWBORN INFANTS OF M. P.

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INTRODUCTION :— Ossification centres in the infants as well as in late foetal life are of great assistance not only for ascertaining the age in medicolegal cases but also in determining the viability of the foetus and even sex of the individual before birth.

Pryor (1928) indicated the possibility of determining the sex of foetus by taking skiagrams of pregnant women and then studying the progress of ossification of the foetal bones. Hill (1939) confirming Pryor's view stated that a very high percentage of foetuses showing ossification of cuboid bone during 8th and 9th foetal months turned out to be female babies, whereas majority of foetuses which did not show ossification centre of cuboid at this age, turned out to be the males.

Racial variations as regards the appearance of primary centers have been very inadequately studied in the foetuses and newborn infants. Hardly few monographs worth the name are available on the subject. Foetal centres as such have been studied by a number of workers, such as, Noback (1943 & 44), Hess (1917), Hill (1939), Kessler and Scott (1950). In India Indarjit (1957) studied certain centres of ossification in some Punjabi foetuses of different ages. However racial variations regarding time of appearance of secondary or epiphyseal centers and their union has been carried out by Hepworth (1929) Galstaun (1930, 1937), Lal & Nat (1934), Pillai (1936), Basu (1938, 1945, 1955). Basu & Basu (1938a & 1938b) and Lal & Townsend (1939).

Though there are a number of methods for determining foetal chronological age ; such as :—

1. Menstrual history.
2. Date of single fruitful Coitus.
3. Uterine measurements.
4. Onset of foetal movements.
5. Foetal encephalometry etc.
6. Radiographic study of ossification centers in the living and Alizarin preparations in the aborted foetuses.

Out of all these, osseous development of foetus is perhaps the most reliable means of estimating physiological foetal age in the living. Undoubtedly as pointed out by Hess (1917), ossification centers can be recognised at least a week earlier in Alizarin preparation than in skiagrams, but such preparations have their own limitations, being useful in the aborted material only. As such more stress has been laid on radiological evidence than Alizarine preparations.

A survey of the literature showed that such a study of ossification centers in the foetuses and newly born children have not



FIG. I. Lateral aspect of foot showing ossification centres
for :-
1. CALCANEUM 2. TALUS & 3. CUBOID

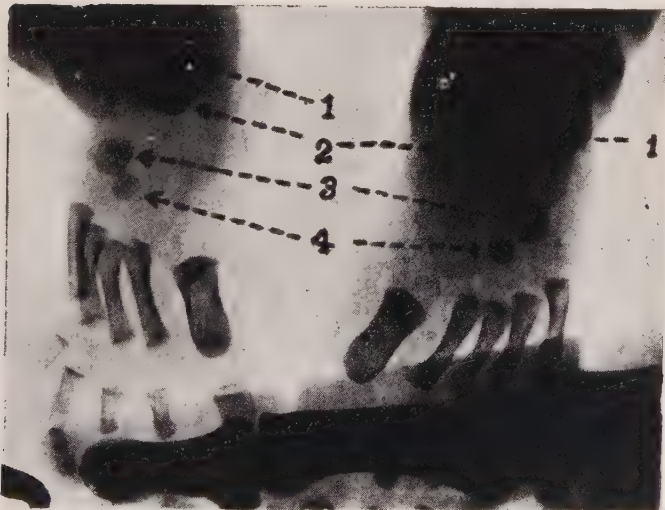


FIG. II. Anteroposterior aspect of foot showing ossification centres
for :-
1. CALCANEUM 2. TALUS 3. CUBOID & 4. LATERAL
CUNEIFORM.

been carried out in India except by Garg (1955) & Indrajit (1957) on few Punjabi newborn infants.

During a general survey of the foetal skeletal Skiagrams the authors observed that there were good deal of variations in the time of appearance of ossification centres of the bones of foot, and the present paper is restricted to the study of ossification centres of the foot only.

MATERIAL & METHOD.

Skiagrams of 400 lower extremities of the two hundred newborn infants from Madhya Pradesh form the main basis of this study. 20 Alizarine preparations of aborted fetuses of varying ages were also studied.

Within two hours of birth, each infant was carefully weighed to the nearest Gram and Ounce separately, and then its length was measured by standard techniques before taking the radiograph.

To see the effect of weight and body length on the ossification centres. The cases were grouped as follows :—

A. According to birth weight following six groups were made.

I.	Infant	weighing	less than	2000 gm.
II.	"	"	between	—2000 gm. — 2499 gm.
III.	"	"	"	—2500 gm. — 2999 gm.
IV.	"	"	"	—3000 gm. — 3499 gm.
V.	"	"	"	—3500 gm. — 3999 gm.
VI.	"	"	"	—4000 gm. — 4499 gm. or more
B—	According to C. H. Length following 3 groups were made.			
	Infant	measuring	less than	47.0 cms.
	"	"	between	47.0 cms. to 49.9 cms.
	"	"	"	50.0 cms. or more.

DISCUSSION

SEXUAL VARIATIONS.

Hill (1939) stated that the sexual difference, in the time of appearance of centres up to 6th lunar month is not appreciable and therefore is not evident in the ossification of talus. He further added that in the later Intrauterine period (7-9 months) there is a distinct tendency for centres to appear earlier in the female than in male. This preponderance though indicative of female sex, is neither very great not very decisive. Kessler, A. and his associates (1950) while considering the size of the ossification centres for the lower end of femur and upper end of tibia found that the centres were definitely larger in females than in male fetuses of the same weight and length. This differentiation due to sex was less apparent in larger infants. The femoral centre was present in 96% of the female and 92% of the male infants. The tibial centre was present in 74% female and 67% male in infants. Davis and Parson (1927) failed to differentiate sex linked differences which later on were shown by Pryor (1928) and others (Kessler et al 1950).

In the present study low birth weight groups viz. I and II did not show much sexual preponderance but groups III and IV of tables I and II indicate that the various ossification centres were present in greater % in the female infants as compared to male infants. It was also noted that the sizes of the various centres were larger in female than in male infants. Above statement does not hold good for the ossification centre of lateral cuneiform bone.

Variations due to Crown Heel Length.

Kessler and Scott (1950) found that the mean size of the femoral as well as tibial centre increased proportionately with the Crown Heel Length. Christie and his Coworkers (1949) also demonstrated a positive association between the centre for cuboid bone and the crown heel length. Though we are in accord with the above workers but the number of cases studied in each group are not statistically sufficient to give a definite conclusion on the subject.

Racial Variations.

Barret (1935-36) examined the epiphyseal union in residents of Rangoon and found that the Eastern races including the Burmese Races mature much earlier than the Western Races. G. Galstaun (1930 & 1937) found that the fusion is earlier in the Indians, in his work on epiphyseal union. The reason, in his opinion, being early maturity in the Indians and more assimilation of calcium. He further states that "If an adequate survey were made, it would not be surprising to find a gradual acceleration of ossification as one moved from regions inhabited by races such as nordic to those in tropics". Regarding the cause of early maturity he says that it is the increased metabolic activity owing to abundance of ultra-violet rays and warmth combined with skin pigmentation, enabling certain biochemical changes to take place, influencing *pari pasu* maturity and ossification. This is an interesting speculation. His observations have been confirmed by other Indian workers as already mentioned.

In table No. 2 of the present work a comparison with a similar work done in America by Christie (1949) has been done. It may be observed that in birth weight group I, the centre for talus was present in 72% of White boys, and 90.9% in Negro boys while the White girls showed the presence of centre in 83.3% and Negro girls 100%. The centre was present in 100% cases (both in male as well as female) of the present study. The centre was recorded even in a premature infant of 7 Calendar months.

Indrajit (1957) stated that he did not find any such racial increase in the frequency of the centre for cuboid, but results are based on the study of few cases only. Moreover he has not classified them according to birth weight and C.R. length. In our opinion his conclusions are therefore not of much significance. Whereas present findings are based on a study of 220 infants.

Variation due to Birth Weight :—

Stuart T. D. (1936) and Vogat & Vickers (1939) studied 228 newborn infants (112 girls & 116 boys) but they did not study the effect of birth weight and their cases were not classified according to the birth weight.

Kelly & Reynolds (1947) also did not consider the effect of birth weight. Menees & Holly (1932) also did not take into account the birth weight.

Christie A. (1949). Made 6 groups according to birth weight and found a fine association of skeletal maturity with increased birth weight, the findings of Christie were further confirmed by Kessler and Scott (1950) although they recorded absence of femoral and tibial centres in some of the cases weighing over 4000 gms. As is evident from table No. I of the present work the authors agree with the findings of Christie and others.

SUMMARY & CONCLUSIONS

Four hundred forty feet of two hundred and twenty newborn infants were examined radiologically and by Alizarine preparations. The effect of sex, race, crown heel length and birth weight on the appearance of ossification centres has been discussed. It has been established that the skeletal maturity increases with birth weight and crown heel length. On comparison it has been noticed that Indian infants at birth are skeletally more mature than white infants and that Indian boys are also more matured than Negro boys. Sexual differences are less marked in infants of lower birth weight group but were more marked in infants of group 3 having greater birth weight and crown heel length. We are therefore of opinion that it is not possible to determine sex with certainty on basis of skeletal maturity by radiographic techniques.

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Table I.

OBSERVATIONS:

TABLE -I. SHOWING THE EFFECT OF BIRTH WEIGHT, SEX, AND GROWN HEEL LENGTH ON OSSIFICATION CENTRES IN THE FOOT OF NEW BORN INDIAN INFANTS.

NOTE: The centres for Talus and Calcaneum were present in 100% of our cases studied.

Birth Weight Group	Sex.	Crown Heel Length Group	% of cases showing presence of ossification centres				
			Lateral Cunei-form	Cuboid	Inter-mediate of Fourth	Phalanx of Fifth	Terminal Phalanx of Fifth
I	Males	I	0.00	16.66	33.00	25.00	75.00
		II	Material	not	available		
		III	"	"	"		
	Females	I	0.00	12.50	25.00	37.50	75.00
		II	Material	not	available		
		III	"	"	"		
II	Males	I	8.69	26.08	82.00	43.00	82.00
		II	0.00	58.33	83.00	51.58	83.00
		III	Material	not	available		
	Females	I	5.79	19.23	80.00	45.00	84.00
		II	0.00	77.77	88.88	44.00	88.00
		III	Material	not	available		
III	Males	I	0.00	50.00	87.00	37.50	87.00
		II	3.84	34.61	84.00	45.00	88.00
		III	0.00	0.00	100.00	50.00	100.00
	Females	I	0.00	55.55	88.00	55.00	100.00
		II	0.00	48.00	92.00	48.00	96.00
		III	0.00	75.00	100.00	50.00	100.00
IV	Males	I	Material	not	available		
		II	42.85	71.41	100.00	57.14	100.00
		III	11.11	44.44	100.00	55.55	100.00
	Females	I	Material	not	available		
		II	25.00	75.00	100.00	50.00	100.00
		III	0.00	33.33	100.00	66.00	100.00
V	Males	I	Material	not	available		
		II	"	"	"		
		III	60.00	100.00	100.00	60.00	100.00
	Females	I	Material	not	available		
		II	"	"	"		
		III	"	"	"		

Table. II
COMPARISON WITH OBSERVATIONS OF CHRISTIE.

S.No. Name of Centre	Name of Worker	Race.	Sex.	This centre was present in 100.0 % of cases in Whites, Negroes and Indians of M.P.					
				I	II	III	IV	V	VI
% of centres in each birth weight group									
1. Calcaneum									
2. Talus	Christie	White	Boys	72.7	100.0	100.0	99.10	100.0	100.0
	"	Negro	Girls	83.3	100.0	100.0	100.0	100.0	100.0
			Boys	90.9	100.0	100.0	100.0	100.0	100.0
			Girls	100.0	100.0	100.0	100.0	100.0	100.0
	Bhargava & Garg	Indians of M.P.	Boys	100.0	100.0	100.0	100.0	100.0	100.0
			Girls	100.0	100.0	100.0	100.0	100.0	100.0
3. Cuboid	Christie	White	Boys	0.0	6.2	14.7	39.8	14.3	60.0
	"	Negro	Girls	0.0	37.5	57.1	65.2	70.4	76.2
			Boys	0.0	23.1	33.3	58.0	68.2	100.0
			Girls	21.4	37.5	68.0	78.2	81.8	75.0
	Bhargava & Garg	Indians of M.P.	Boys	16.16	37.14	36.11	25.25	100.0	
			Girls	12.50	34.28	52.63	66.66		
4. Lateral Cuneiform	Christie	White	Boys	0.0	0.0	0.0	2.7	2.3	3.0
	"	Negro	Girls	0.0	0.0	0.0	0.0	5.6	9.5
			Boys	0.0	3.8	8.1	15.0	14.0	14.3
			Girls	0.0	6.2	13.6	18.8	18.2	25.0
	Bhargava & Garg	Indians of M.P.	Boys	0.0	5.71	2.77	20.0	60.0	
			Girls	0.0	8.85	0.00	20.0		

A STATISTICAL SURVEY OF INDIAN CRANIAL INDICES

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The cranial form in the vertical contour can be distinguished through the length-breadth index. The difference will mark out three classes of crania, Dolichocranial, Mesocranial and Brachyocranial (Dolichocephaly, Mesocephaly and Brachycephaly), based on values given by this index which are commonly employed in routine studies.

Macalister (1898), deplored the lack of a suitable explanation for the differences revealed by this classification. He observed that the pattern of brain growth had a marked influence on the form of the neurocranium. It led him to identify two types of brachycephaly :

1. Primary brachycephaly where the foetal proportions are retained and the cranium is microcephaly.
2. A secondary brachycephaly due to increased frontal growth and associated with megacephaly.

He was of course aware that besides brain growth the dentition, muscular attachments and the balance of the head on the vertebral column also influence the form of the cranium. According to Thomson (1903), these varying forms were really conditioned by the volume of brain itself. He maintains that, "There is not necessarily any stability about them and that given the necessary condition it is quite possible to evolve round headed race. Though undoubtedly in nature the change may have taken thousands of years to effect." Martin (1928), points out that dolichocephaly predominates in Africa and Australia. The Dolichocephaly is also found in arctic region and in South India. In the Central and Eastern Asia brachycephaly is widely prevalent. Such a degree of brachycephaly is found again in Central Europe along with dolichocephaly and mesocephaly. It is found in certain African regions.

Since early man was dolichocephalic when brachycephalic racial groups were observed in geographically distinct regions, it was presumed that there must be a traceable link between such groups. Brachycephaly in Central Europe for instance has been attributed to the infiltration of Mongoloid broad heads (Hooten 1947). Weidenreich (1945), have demonstrated it to be quite likely that such brachycephaly could have risen independently. He shows that there has been an increase in the incidence of brachycephaly from Neolithic to modern times in nearly all the peoples of different continents. He states that it is an evolutionary trend evident in modern man, the result of a better adaptation to erect posture. Abbie (1947), finds the evidence insufficient to support Weidenreich's statement. He surveys the problem of head form

considering it in relation to evolution, race, jaw development, heredity, environment, internal form and capacity. He too like Macalister, defines two types of brachycephaly.

1. Primary brachycephaly characteristic of infants, dwarfs and females.
2. Secondary brachycephaly associated with increasing stature reflecting the trend of evolution as a whole.

In the life of an individual he recognises four stages of skull differentiation :

1. At birth, the primary or universal human mean of 78-82.
2. During the first two or three years, a secondary or specific group mean.
3. In late adolescence, the adult female mean of incomplete group differentiation.
4. The adult male mean of complete group differentiation.

He states that cranial evolution is tending towards preserving their foetal mean index (78-82). He does not consider it as a process of foetalisation but rather as a trend to attain a head form which is most economical yet giving the maximum capacity. He suggests that only a grouping of skull with the following values for indices will have any biological meaning, brachycephaly over 82, dolichocephaly under 78, and the intermediate or foetal range of 78-82.

Trevor (1950), differentiates three types of skull form and has suggested the grouping of skulls with the following values for the indices 0-74.9, dolichocephaly, 75-79.9 mesocephaly and 80—above—brachycephaly.

Material :

The present series of crania numbering 516, from the comparative and Anthropological section of the museum of the Department of Anatomy at G. S. V. M. Medical College, Kanpur, India were studied to determine the cranial indices according to Trevor (1950). The whole series was treated as one group, and its approximate mean (Weighted mean) was calculated. This was compared with the cranial indices of the Indian crania studied by earlier workers. The present cranial series was further divided according to the area to which they belonged, and were subjected to statistical test to determine if there is any homogeneity or otherwise.

Observation :

The weighted mean of the present total series is 72.6(519) and is compared with the result of the earlier workers as given in Table No. 1.

TABLE I

	Morant	Tildeslay	Turner	Harrower
Veddass series	72 (39)	71.9 (32)	—	—
Marwar series	—	74.6 (21)	—	—
Hindoo series	—	75.8 (33)	—	—

Tamil series	—	---	74.5 (4)	73.5 (21)
Bhil series	—	---	72.9 (14)	---
Present Indian series	72.6 (519).			

The Cranial indices of the crania from various areas representing the provinces to which they belonged are compared as given in table No. II.

TABLE II

	Mean	Standard deviation	Standard error
United Provinces (U.P.)	71.8 (328)	± 3.15	± 0.17
Bihar	72.4 (26)	± 3.90	± 0.76
Madhya Pradesh (M.P.)	73.3 (35)	± 4.17	± 0.69
Andhra Pradesh (A.P.)	74.6 (130)	± 4.06	± 0.39

The cranial indices of the crania belonging to various areas or provinces are compared as in Table II are further subjected to statistical test by calculating the critical Ratio. Keen (1947), takes all values of the critical ratio of 2.5 to be significant without further differentiation. The Table III, shows the critical ratio between the crania from various areas or Provinces. The level of critical ratio significant are marked x and the level denoting insignificant are marked—.

TABLE III

U.P. & A.P.	U.P. & M.P.	U.P. & Bihar	A.P. & M. P.	A.P. & Bihar	Bihar & M.P.
17.5	3.0	1.0	2.13	3.4	0.9
+	+	—	+	+	—

In Table No. I, the comparison of weighted mean of the present series with the cranial indices of Veddahs series of Woo & Morant (1932), Tildesley (1920-21), and Bhils series of Turner (1906) are practically same. This confirms with the views of Keith (1916) who says, "Without doubt many of the races in India, Further India, and in Oceania have been produced by the blending of two or more distinct stocks". Singh (1956), has pointed in his study that Veddah cranium is basically morphologically distinct type, but there has undoubtedly been an infusion of Indian elements into the Veddah stock, and has suggested that small group of South Indian crania which present 'negroid' features can be accounted for the absorption of Veddah elements. The cranial indices of Marwar series and Hindoo series of Tildesley (1920.21), Tamil Series of Turner (1906) and of Harrower (1928), differ considerably from the present series. This difference can be explained as if the cranial series of these workers were taken from the Race mentioned by them representing Racial purity, whereas the hybrid origin of the present series show lower value of the weighted mean of the

cranial indices.

The cranial indices of the crania from various areas or provinces are statistically analysed. This was studied keeping in view the study of Norfolk Islanders—as Howells (1936), using Shaprio's data on the Norfolk Islanders, has shown that a demonstrably hybrid group can be more uniform than either of its parent stocks, and Hooton (1925), has suggested 'That homogeneity is quite possibly obtained by a long continued pan mixture of very diverse racial elements'. Hence it is justified in dealing with these split series according to areas or provinces to which they belong.

On examination of Table III, it is to be noticed that maximum difference is between United Province and Andhra Pradesh followed by United Province and Madhya Pradesh and Andhra Pradesh and Madhya Pradesh. It shows heterogeneity between United Province and Andhra Pradesh, Andhra Pradesh and Bihar, United Province and Madhya Pradesh, the homogeneity between United Province and Bihar, Andhra Pradesh and Madhya Pradesh, Bihar and Madhya Pradesh, which confirms the proximity of these areas.

Summary :

The weighted mean of cranial indices of 519 crania from the Anthropology and comparative Anatomy museum, G.S.V.M. Medical College, Kanpur was calculated.

The weighted mean of cranial indices of present series was compared with the cranial indices of previous workers.

The whole present series were split according to provinces and statistically tested, which shows heterogeneity between United Province and Andhra Pradesh, United Province and Madhya Pradesh ; and Andhra Pradesh and Bihar, homogeneity between United Province and Bihar, Bihar and Madhya Pradesh, Andhra Pradesh and Madhya Pradesh which confirms the geographical proximity of the areas or Provinces.

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THE PANDIT AND MOHAMMEDAN OF KASHMIR : AN ANTHROPOMETRIC STUDY

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Kashmir, situated between 32°17' to 36°58' N and 70°26' to 80°30'E, is the northernmost part of India. It is the home of a number of religious groups such as the Mohammedans, Hindus, Sikhs, Buddhists etc. Though numerically a small minority when compared with the Mohammedans, the Hindus occupy an important position in the whole of Kashmir. With few exceptions, they are Brahmans and are commonly known as Pandits. It is an honorific title meaning 'a learned man'—although at present a great majority of them scarcely deserve the title. But it implies that they are probably the descendants of learned men of old. Their three-fold division of astrologer (Jyotishi), priest (Guru or Bachabatt) and writer and clerk (Karkun) also gives a similar impression. They also claim to be the present representatives of the Aryan immigrants into India. Rai Bahadur Pandit Bhag Ram, Superintendent of Census Operation in Kashmir has also observed, "The Province of Kashmir excluding the District of Muzafferabad, has been the most remarkable seat, if not of the first, at any rate of the ancient colony of Aryan immigrants from Central India" (Census of India, 1891, Vol. XXVIII—The Kashmir State).

We hear of the exquisite beauty of the Kashmiris. The imperial Gazetteer of India (Vol. XV-1908, p. 106) speaks of the Pandits as handsome, with well-cut features, small hands and feet and graceful; the women fair and good looking, and more refined than the Musalmans; and the children extremely pretty.

Although many observers thus speak of the beauty of the Kashmiris, we have no very exact knowledge of their physical character except that of Ujfalvy who, towards the end of the last century, measured some twenty or thirty Pandits and found them as follows: "size above medium, body powerful and muscular, skull voluminous, eyes dark and brilliant, nose long and straight, lips thin, long integumental upper lip, face with rich beard, oval and bearing the stamp of intelligence and cunning" (cited by Eickstedt, *Man in India*, Vol. VI. No. 4 1926, p. 256). Following him Eickstedt speaks (Ibid. p. 256) of the Kashmiri as "physically a very beautiful creature though his character is not much valued." He further observes (Ibid. pp. 256-7). "Besides the type of the common Kashmiri there exists the type of the Kashmir Brahman, the Pandit, which is among the noblest of the Aryan settlers of the northwest India. His high forehead and almond eyes, black or brown wavy hair, small mouth and ears, delicate wrist and foot-joints, his high stature and light complexion show his difference from the Mahomedan Kashmiri at once." From what follows it

will be seen that many of these observations and impressions are not corroborated by actual measurements and observations.

During the months of May and June, 1937, Prof. H. C. Chakladar of the Department of Anthropology, Calcutta University, took a number of somatometric measurements and somatoscopic observations on 120 Pandits at Srinagar, the capital of the state, 86 Pandits at Martand about 50 miles from Srinagar and also 52 Mohammedans at Srinagar. The measurements and observations were taken after Martin's *Lehrbuch*, Second Edition. In the following pages an attempt has been made to study the physical characters of the Pandits and compare them with the Mohammedans on the basis of those measurements and observations.

For the Pandits we have two sets of measurements—one from Srinagar and another from Martand. The two series, as seen in Tables I and III are found to agree closely. The maximum difference (14.36 mm) is in stature and the minimum (0.25 unit) in cephalic index. Both are alike in being of medium stature, dolichocephalic, hypsicephalic, acrocephalic, leptoprosopic, lepten, leptorrhine and proopic. This, in short, appears to be the physical character of the Pandits. The two series may, therefore, be combined into one as representative of the Pandits. It has next been compared with the Moslem series. (It may be noted that compared with the numerical strength of the Moslem, the number (52) is too small.)

From Table II it is seen that although both the Pandits and Moslems are of medium stature, the former are slightly shorter (10.39 mm) than the latter. The two also differ in range of variation (Pandit—294 mm, Moslem—254 mm).

Both are dolichocephalic (Pandit—74.76, Moslem—74.17) and there is little difference (.58) in C. I. in the range (Pandit—16.46, Moslem—13.32). In length-height index, there is a close agreement, both being hypsicephalic (Pandit—67.63, Moslem—66.67) and the range being Pandit—32.30 and Moslem 29.66. In breadth-height index both are acrocephalic (Pandit—90.93, Moslem—86.66) and the ranges are also alike (Pandit—39.44, Moslem—35.92). Neither is there any appreciable difference in the absolute measurements of the head and their ranges of distribution.

Both are leptoprosopic (Pandit—90.11, Moslem—89.33) and lepten (Pandit—55.76, Moslem—56.26). There is, however, slight difference in the range (F.I.—Pandit—33.79, Moslem—22.51 ; U.F.I.—Pandit—26.83, Moslem—15.49). In the absolute measurements of the bizygomatic breadth and morphological total facial and upper facial length, both of them agree closely except in morphological total facial length, even there the difference is not much, it being only 1.05 mm, and in bizygomatic breadth and morphological upper facial length, the difference is only .76 mm and .26 mm respectively. Neither is there any significant difference (.38 mm) in bigonial diameter. Jugomandibular indices of the two also agree in average and in range (Pandit—av. 74.11, range—20.17 ; Moslem—av. 74.82, range—19.07).

Both again are leptorrhine differing only by .64 (Pandit—62.39, Moslem—61.75) and ranging between 50.00-82.35 (Pandit—50.00-

82.35; Moslem—51.61-80.00). In nasal height and breadth also there is no appreciable difference either in average or in range (Pandit—N.H. 55.66 mm, N.B.—34.60 mm; Moslem—N.H.—56.40 mm, N.B.—34.50 mm). But in nasal elevation there is some difference (Pandit—21.44, Moslem—22.65) and this reflects more significantly in nasal elevation index (Pandit—62.18, Moslem—65.69) this indicating that the Moslems have a greater elevation of the nose. Both are pro-opic (Pandit—72.23, Moslem—75.00). There is also a close agreement in orbito-nasal diameter and orbito-nasal arc both in averages (Pandit—O.N.D.—100.01 mm, O.N.A.—115.80 mm; Moslem—O.N.D.—99.98 mm, O.N.A.—116.17 mm) and in ranges (Pandit—O.N.D.—25 mm, O.N.A.—24 mm; Moslem—O.N.D.—21 mm, O.N.A.—27 mm).

Significance of the differences between the means of the different absolute measurements and indices have been calculated according to the formula as suggested by Chambers*. The differences are as follows:—

St.—1.11, H.K.—1.44, H.B.—2.64, H.H.—1.03, F.B.—1.10, Bigonial—0.49, F.L.—1.08, U.F.L.—0.41, N.H.—1.32, N.B.—0.29, N.D.—2.63, O.N.D.—0.05, O.N.A.—0.48, C.I.—0.88, A.I.—1.18, F.I.—0.34, U.F.I.—0.88, Jugo—mandi. 1.—0.11, N.I.—0.69, N.E.I.—2.53, and O.N.I.—0.77.

It is seen that the only difference of any significance is in H.B. (2.64), N.D. (2.63) and N.E.I. (2.53). So the two might be taken to be practically alike and are medium in stature, dolichocephalic, hypsicephalic, acrocephalic, lepto-prosopic, lepten, leptorrhine and pro-opic.

Now this is what is to be expected as majority of the Moham-medans who contribute about 95% of the population of Kashmir are converts from the Hindus and that "up to 1340 A.D. there was not a single Mohammedan in Kashmir" (Census of India, 1891, Vol. XXVIII—The Kashmir State—p.140).

Specification

But from specification (Table III), it is seen that the Moslem series includes a good percentage (23.08%) of short and 28.85% of tall individuals and 48.08 of medium (including below medium and above medium) individuals, thereby suggesting a fusion of two sets of individuals—one short and another tall. Among the Pandits the stature appears to be evenly distributed the concentration being at medium (66.49%) although there is a tendency to be short.

* *Statistical Calculations*, E. G. Chambers, 1955, p. 89.

$$\sqrt{\frac{M_1 - M_2}{\frac{1}{N_1} + \frac{1}{N_2}}}$$

Where M_1, N_1, s are the mean, number and standard deviation respectively of one and M_2, N_2 the mean, number and standard deviation respectively of the other.

If the result is greater than two, means are taken to be significantly different, i.e., it is unlikely that the two groups belong to the same population.

In cephalic, length-height and breadth-height index, there is practically no difference—both are dolichocephalic, hypsicephalic and acrocephalic in the majority.

In the shape of the face some minor differences have to be noticed as indicated by F.I. and U.F.I. while all shape of face occur in both and they have a greater percentage of rounder face, the Pandit's face tends to be more elongated.

Although both of them are highly leptorrhine in the average the Moslems have still longer noses including 15.38% of hyper leptorrhines, and the root of the nose is less depressed even though they are equally pro-opic (Pandit—72.33, Moslem 75.00).

TABLE IV

CORRELATION

	Pandit	Muhammadan
Medium—dolicho—leptorr.	40.20	35.54
" meso. — "	18.44	5.77
Short—dolicho. — "	10.68	13.46
Tall—dolicho. — "	10.68	19.23
Short—meso. — "	6.31	5.77
Medium—dolicho.—meson	3.39	3.85
Shrot — " — "	2.42	1.92
Medium—meso — — —	1.94	1.92
Tall — — —leptorr	1.45	9.62
Short — — —mesorr	.97	—
" — — brachy—leptorr	.97	1.92
Medium — — —"	.97	—
" — — —dolicho.—platyr	.48	—
Tall — — —"	.48	—
" — — —meso.—mesorr	.48	—

From Table IV it is seen that dolichocephalic-leptorrhine type is prevailing in both (Pandit—61.65% and Moslem—69.23%). If stature is taken into consideration the Moslems show a higher percentage of taller stature (Pandit 10.68% and Moslem 19.23), while the Pandit slightly higher percentage of medium stature (Pandit 40.20% and Moslem 36.54%). But on combining short and medium stature with dolichocephaly and leptorrhine, it is found that the type (i.e. short to medium-dolichocephalic and leptorrhine) is equally prevalent in both (Pandit 50.97% and Moslem 50.00%). This might, therefore be taken to be the prevailing type of the both irrespective of whether they are Pandits or Moslems.

SOMATOSCOPIC OBSERVATIONS

Generally speaking both are of brown complexion of varying shades. Majority of the Pandits vary between Nos. 12, 13, and 14 of von Luschan's chart which appear to correspond to reddish brown (forehead—59.91% and chest 49.01%), though Martin has not given any name for them. But the Moslems seem to have

acquired a further shade of brown. 39.22% on the forehead and 31.37% on the chest of them have complexion varying between Nos. 12 to 14; but an almost equal percentage of them (35.29% on forehead, and 33.33% on the chest) have complexion varying between Nos. 18 to 20 which might also be described as reddish brown with of course a greater shade of brown. Both, however, have almost equal percentage (Pandits 13.86% on the forehead, 32.62% on the chest—Moslems 11.76% on the forehead, 29.41% on the chest) of proper reddish brown of Martin (Nos. 9-11)—though I would prefer to call it light reddish brown in order to distinguish them from (Nos. 12-14). But of fawn white (Nos. 7 and 8) like that of the south European, there are very few individuals (Pandit —.99% on the forehead and 1.48% on the chest—Moslem—1.96% on chest and none on the forehead). Thus in general might be described as of fair complexion—fairer than peoples of the plains.

Majority of the both have fine hair—in a few cases it is moderately so—but never coarse, and of shallow wave. About 70% of the Pandit and 60% of the Moslem have black hair corresponding to X and Y of Haar-forebeu-Tafel of Fisher and Saller and the rest have hair of varying reddish tint. Head and face hair is fairly thick and the body hair in some cases appear to be scanty. The crown and occipital region are moderately vaulted. The forehead high, though in a few cases it was found to be receding—and breadth medium and a few broad.

The face is oval with a few broad ones. The chin is oval and the bone of the lower jaw is either submedium or medium. The malars are not prominent and lips usually thin and there are a few with medium thickness. The eversion of the lower lip and prognathism are totally absent.

Eye slit is usually straight and of medium width. Very few have narrow opening and the fold is completely absent. The eye brow is either thin or of medium thickness and separate, very few have connected brows.

About 66% of Pandits and 54% of Moslems have either brown or fair brown eyes corresponding to Nos. 4, 5, 6 of Martin's Augenfarbentafel and about 29% of the Pandits and 21% of the Moslems have either black brown or dark brown colour corresponding Nos. 1, 2 and 3 of the same author. Besides these, a few individuals of either group have variable eye colour.

Majority of both the groups have moderately prominent supra orbital ridge (Pandit 93%, and Moslem 84%). Only in about 7% of the Pandits and 16% of Moslems it remains as a trace.

About 55% of the Pandits and 63% of the Moslems have convex nasal bridge, and 41% of the Pandits and 25% of the Moslems Str. bridge and in 3% Pandits and 11% Moslems it is concavo-convex. The roof of the nose is moderately depressed in about 92% of the Pandits, and 90% of the Moslems and it is deep in 8% of the Pandits and 19% of Moslems.

Both the Pandits and Moslems have very weak muscles. About 48 p.c. of the Pandits and 24 p.c. Moslems are weak with poorly developed muscles, and barely 1 p.c. Pandits and 4% Moslems may be described as strong and the rest (Pandit 51% and Moslem 72%)

have normally developed muscles.

Majority of the Pandits (56.86%) and a high percentage of the Moslems (40.38) may be classed as hypotonic which roughly corresponds to the asthenic or leptosome type of Kretschmer and the cerebral type of the French writers in which side by side with a comparatively feeble development of the trunk and limbs, a strongly arched cranium with a high forehead is found to occur (*Human Heredity* by Erwin Baur, Eugen Fischer and Firtz Lenz translated by Eden and Cedar Paul—pp. 156-7).

CONCLUSION

The Pandits and the Mohammedans are found to be of medium stature, dolichocephalic, hypsicephalic, acrocephalic, leptoproscopic, lepten, leptorrhine, pro-opic with reddish brown complexion, black shallow wavy hair, fairly thick on the head and face and body hair scanty, moderately arched crown and occipital region, oval face, sub-medium to medium angle of the lower jaw, malars not prominent, lips without any eversion, non-prognathic face, straight brown to fairly brown eye with medium opening, eye brow thin or of medium thickness and not connected, nasal bridge either convex or straight and the root of the nose moderately depressed. Both of them are either weak or of medium constitution with poorly developed muscles and fall in either hypotonic or normal constitutional type of Martin.

Now these characters of the Pandits and Mohammedans agree well with the characters of the Mediterraneans as given by Haddon (*The Races of Man*, 1929, p. 24) and the characters of the plateau Yemenes as given by C. S. Coon, whom he considers "to form the purest nucleus of the Mediterranean race in Arabia" (p. 403) on the basis of 500 adult males measured by him (C. S. Coon—*The Races of Europe*, 1939). He describes them as follows (pp. 403-7): St.—164 cm., slightly built, leptosome (60%) rarely pyknic, skin colour—exposed—brown (acc. to Lushan's chart Nos. 12-18—over 50% corresponding to No. 15 and darks), unexposed—83% swarthy white (corresponding to Nos. 10-11 and lighter only 5%). In unexposed part 83% are swarthy white corresponding to Nos. 10 and 11 and lighter shades corresponding to Nos. 7 and 9 occur in only 5%.

Black low wavy hair is in the majority, only 4% have straight and 20% curly hair. Forehead is high and occipital portion considerably protruded.

There is no projection of the malars. The angle of the mandible is medium or slight. The lips are usually thin to medium and only slightly everted and prognathism is rare—only 9% shows a slight to medium development.

About 50% have dark brown eyes and black and light brown eyes are in the minority. Internal eye folds are wholly absent. Eye brow is very thick in 25% and moderate in the rest and connected in 85%. The supra orbital ridge is pronounced in 5% and the rest are either slightly or moderately so.

The Yemenes nose is high-rooted, high bridged, and narrow with a convex to straight profile and a narrow, slightly elevated

tip.

The Mediterranean zone, according to him, "stretches from Spain across the straits of Gibraltar to Morocco, and thence along the southern Mediterranean shores into Arabia, East Africa, Mesopotamia and the Persian high lands and across Afghanistan into India".

At p. 508 he further observes that "Different branches of the Mediterranean race, widely separated in time and space, may be indetical or nearly identical in all measurable characters, but may differ profoundly in such superficial (in the literal sense) racial criteria as skin color, hair color, eye color and hair form. Pigmentation, within the wider Mediterranean groups, is of little value in the estimation of long range racial associations".

Evidence of the existence of Mediterranean element has also been traced in the Indus valley and further west. Stuart Piggott (*Prehistoric India*—Penguin Books, 1950, p. 145) observes that nearly half of Mohenjo-daro skulls and the well preserved skull from Nal in Baluchistan might be classed as Mediterranean and that the characteristic type appears in late Natufian times in Palestine (Mesolithic—dating back to 9th to 10th millennium B.C.). The Predynastic Egyptians are also supposed to belong to this type. At p. 146 he also speaks of the homogeneity of the physical appearance between the Al' Ubaid, Anau and Mohenjo-daro and the homogeneity of agricultural economics on the basis of painted pottery.

So it does not seem improbable that being pressed from behind the Mediterraneans of the Indus valley civilization might have taken refuge in the valley of Kashmir. It appears that the type has been best preserved in the Pandits by their strict marriage rules and the Moslems though basically of the same type have absorbed some amount of other blood—their *liberal* marriage rules proving no hinderance to such a union.

Table I

	St.	C.I.	L.H.I.	B.H.I.	F.I.	U.F.I.	O.N.I.	Jugo- mandi- Ind.	N.I.	N.E.I.	
PANDIT											
	OF SRINAGAR	1646.75	74.86	67.48	89.80	89.76	55.49	116.18	73.74	62.11	62.40
	OF MARTAND	1632.39	74.61	68.06	92.51	90.60	56.15	115.72	74.61	62.79	61.86

Table. II
(Measurements are in mm)

PANDITS (206)				MOHAMMEDAN (52)			
RANGE OF VARIATION	M	S.D.	V.	RANGE OF VARIATION	M	S.D.	V.
1472-1766	1640.76±2.47	52.65±1.76	3.21±.11	1522-1775	1651.15±6.05	64.73±4.28	3.92±.26
176-209	193.50±.28	5.97±.20	3.08±.20	178-213	193.04±.35	3.75±.25	1.94±.13
H.L.	144.63±.23	4.87±.16	3.36±.11	135-157	143.06±.34	3.62±.24	2.36±.16
H.B.	129.59±.48	10.30±.34	7.93±.26	101-152	129.67±.10	11.07±.94	8.53±.56
H.H.*	134.99±.22	4.64±.15	3.44±.11	125-153	134.23±.41	4.43±.29	3.30±.22
F.B.							
Bigo.							
breadth	99.85±.26	5.62±.19	5.63±.19	87-110	100.23±.45	4.89±.32	4.88±.32
F.L.	121.53±.31	6.54±.22	5.38±.18	106-135	120.48±	6.22±.41	5.16±.34
Upper							
F.L.	75.18±.21	4.37±.15	5.82±.19	63-84	75.44±	4.12±	5.46±.36
N.H.	53.66±.17	3.62±.12	6.51±.22	45-62	65.40±.34	3.60±.24	6.38±.42
N.B.	34.60±.12	2.51±.08	7.25±.24	30-39	34.50±.20	2.18±.14	6.32±.42
N.D.	21.44±.12	2.64±.09	12.33±.42	16-31	22.65±.28	3.07±.20	13.55±.90
O.N.D.	100.01±.20	4.29±.14	4.29±.14	91-112	99.98±.35	3.73±.24	3.73±.24
O.N.A.	115.80±.22	4.63±.15	3.99±.13	102-129	116.17±.47	5.01±.33	4.31±.28
C.I.	67.16-83.62	2.80±.09	3.75±.12	68.14-81.46	74.17±.26	2.79±.18	3.65±.58
L-H.I.*	67.63±.35	5.34±.18	7.80±.26	52.31-81.97	66.67±.55	5.83±.39	8.74±.58
B-H.I.*	69.59-109.03	7.37±.25	8.15±.27	73.43-109.35	89.60±.73	7.82±.52	8.85±.58
F.I.	71.43-105.22	5.10±.17	5.66±.19	81.34-103.85	89.83±.51	5.40±.36	6.00±.40
U.F.I.	41.55-68.38	3.74±.12	6.70±.22	47.71-63.20	56.26±.34	3.67±.24	6.50±.43
Jugo.							
Mandi I.	64.34-84.51	3.74±.11	5.09±.17	64.93-84.00	74.82±.38	4.12±.27	5.51±.36
N.I.	50.00-82.35	6.24±.21	9.99±.79	51.61-80.00	61.75±.56	5.98±.40	11.51±.76
N.E.I.	38.46-94.12	8.60±.29	13.77±.46	45.95-96.88	65.69±.85	9.08±.60	13.80±.91
O.N.I.	140.81-133.69	115.99±.15	3.97±.13	106.25-128.12	116.56±	4.84±.32	4.16±.28

*Omitting No. 21 of Srinagar—total being 205.

Table—III

SPECIFICATION

			PANDIT		MOHAMMEDAN	
			Srinagar	Martand	Total	
			%	%	%	%
St.	V.Short	(1300-1499)	—	1.16	.46	—
	Short	(1500-1599)	20.83	18.60	19.90	23.08
	-Medium	(1600-1639)	23.33	32.56	27.18	17.31
	Medium	(1640-1669)	22.50	23.26	22.81	19.23
	Medium+	(1670-1699)	17.50	15.12	16.50	11.54
	Tall	(1700-1799)	15.83	9.30	13.11	18.85
	V.Tall	(1800-1999)	—	—	—	—
C.I.	Dolich.	(x-75.9)	67.51	72.10	69.42	75.—
	Meso.	(76.0-80.9)	30.83	25.58	28.64	23.08
	Brachy.	(81.0-85.4)	1.67	2.33	1.94	1.92
	Hyperbrachy.	(85.5-x)	—	—	—	—
* L-H.I.	Chamae.	(x-57.6)	5.04	2.33	3.90	7.69
	Orth.	(57.7-62.5)	16.81	13.95	15.61	11.54
	Hypsi.	(62.6-x)	78.15	83.72	80.48	80.77
* B-H.I.	Tapeino.	(+ -78.9)	8.40	3.49	6.34	11.54
	Metrio.	(79.0-84.9)	18.49	13.95	16.58	7.69
	Acro.	(85.0- x)	73.11	82.56	77.07	80.77
F.I.	Hyper					
	Euryproso.	(x-78.9)	3.33	—	1.94	—
	Euryproso.	(79.0-83.9)	9.16	5.81	7.77	15.38
	Mesoproso					
	Euryproso.	(84.0-87.9)	23.33	27.91	25.24	21.15
	Leptoproso	(88.0-92.9)	37.50	40.70	38.83	30.77
	Hyper lepto	(93.0- x)	26.69	25.58	26.21	32.69
U.F.I.	Hyper Euryen	(x-42.9)	—	1.16	.48	—
	Euryen	(43.0-47.9)	1.67	1.16	1.45	1.92
	Mesen	(48.0-52.9)	25.00	11.63	19.42	13.46
	Lepten	(53.0-56.9)	41.69	44.19	42.72	40.38
	Hyper lepten	(57.0-x)	31.67	41.86	35.92	44.23
N.I.	Hyper leptor.	(x-54.9)	9.16	5.81	7.77	15.38
	Leptor.	(55.0-69.9)	82.50	81.40	82.04	76.92
	Mesor.	(70.0-84.9)	8.33	12.79	10.19	7.69
	Chamae.	(85.0-99.9)	—	—	—	—
O.N.I.	Platyopic	(x-109.9)	10.	12.79	11.17	7.69
	Meso-opic	(110.0-112.9)	18.33	13.95	16.50	17.31
	Pro-opic	(113.0- x)	71.67	73.25	72.33	75.—

*Omitting No. 21 of Srinagar—the total being 205.

BOOK REVIEWS

METHOD IN SOCIAL ANTHROPOLOGY : SELLECTED ESSAYS
 BY A. R. RADCLIFFE-BROWN. EDITED BY M. N. SRINIVAS. BOMBAY :
 ASIA PUBLISHING HOUSE, 1960. PAGES : xix + 157. PRICE :
 Rs. 12.00

At the time of his death, Professor Radcliffe-Brown was writing an introductory book on social anthropology. Of this, five chapters had been finished—on the definition of social anthropology, its origins, and on the concepts of social structure and social evolution. This hitherto unpublished work forms half of the book under review, the rest consisting of five of Radcliffe-Brown's important addresses and articles.

The newly published work is written in the polished way to which we are accustomed. Much of it is complete as it stands ; yet, in other cases, one must regret the fact that Radcliffe-Brown apparently left no plan of the contents of subsequent chapters. Thus, one may comment on the lack of a discussion of social change, only to speculate on whether this would have been given later in the book. Radcliffe-Brown uses the concept of social organisation in his analysis of social structure, but only as it defines the 'arrangement of activities', and with none of the stress on organisation as the spring from which social change flows, as developed by Firth. Again, diachronic studies are said to be appropriate for the study of change in 'social life' but no details are added, particularly on the relation of such studies to the concept of social structure. The impression thus remains of a static approach, though this might have been changed by what, alas, remained unwritten.

The book will prove invaluable to all social anthropologists, and we must be grateful to Professor Srinivas for his introductory evaluation of Radcliffe-Brown's work, as well as for his making accessible papers which are hard to come by, and for presenting us with material which will aid the assessment of Radcliffe-Brown's place in social anthropology.

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Adrian C. Mayer

JOINT FARMING X-RAYED : THE PROBLEM AND ITS
 SOLUTION BY CHARAN SINGH. BOMBAY : BHARATIYA VIDYA
 BHAVAN, 1959. PAGES : xiii + 322. PRICE : Rs 17.50 OR SH.
 30 OR \$5.

One does not ordinarily think of a book by a minister of Government (the author has held and will soon again hold ministerial

posts in the government of Uttar Pradesh) which criticises his Government's policies vis-a-vis agriculture as an anthropological document important enough to be reviewed in a professional journal of the field. Yet, the book by Mr. Charan Singh entitled *Joint Farming X-Rayed : The Problem and its Solution* is no ordinary political diatribe by a disgruntled interested party. It is, rather, an effort to marshal a considerable body of scholarly materials from history, economics, sociology, etc., in order to establish the view that a country's agricultural policies (as indeed its policies with regard to any area of its social life) must be attuned to the material and cultural realities prevailing there and must, by the same token, avoid the error of assuming that merely because a particular innovation worked well under one set of cultural and material conditions (say, in Russia or the U.S.A.) that it would be equally as workable under highly different ones. Thus, the book is instructive to social scientists and policy-makers alike as an effort by a man involved in the practical affairs of politics and administration to apply to a concrete problem of great magnitude one of the cardinal discoveries of anthropological inquiry : All systems of thought and action must be comprehended against the background of the cultural pattern which spawned them and in relation to which their workability (*i.e.*, *function*) must be judged.

Mr. Charan Singh's protest is against the doctrinaire adoption by India of mechanized, cooperative farming inspired by the experiences (or alleged experiences) of the Russians and the Chinese without first exploring the question as to whether India's land-labour situation and cultural condition makes this the most feasible, not to mention the most rewarding, approach to solving the nation's admitted agricultural backwardness.

Notes Mr. Singh :

"The quantity of land that is available for production in our country today is, for all practical purposes, fixed ; there is little possibility, as we shall see, of extension of agriculture by reclamation and colonisation. In other words, land is relatively scarce and constitutes the limiting factor. On the other hand, because of our great and increasing population, labour is cheap " (p. 19).

He Then goes on to say that :

"Our agrarian organisation has, therefore, of necessity, to be such as would lend itself to the maximum exploitation of land, as will give us maximum yield per acre, even though it may not be consistent with the maximum exploitation of labour and capital. It is only in countries like the U.S.A., Canada, Australia or New Zealand where land is not a limiting factor and labour is relatively scarce, that it may be in the national interest to obtain the maximum output per worker rather than maximum yield per acre." (p. 20)

And, finally, in a reference to Marxist theories, obviously directed at the many who assume an automatic validity for them in the Indian situation, Mr. Singh declares :

"Marxism, like capitalism, has everywhere asked : How

could one obtain from the existing surface a maximum return with a minimum of labour? The question for us is different. It is: How could we on the existing surface secure a living to a maximum number of people through the use of their labour in the villages" (p. 20)?

Setting up his intellectual task in this way, Charan Singh proceeds to analyse the social, cultural, and economic condition of India and to compare that condition with several other parts of the world. American, Japanese, Israeli, Scandinavian, Russian and Chinese experiences with agricultural policies are examined from the standpoint of their situational relevance. The statistical data presented is truly formidable (fifty-one tables!) as is the body of quoted material (indicating a very wide range of reading). Unfortunately, however, there is lacking both a systematic index and a bibliographical appendix. These would be of considerable use to the scholarly reader if they were added in a later edition.

From Mr. Singh's arguments one gets the feeling that he might have attempted to make a clearer conceptual distinction between agricultural mechanization and 'joint-farming'. There are times when he appears to run the two things together and other times when he seems to want to separate them. This is important to the extent that we can conceive of 'joint-farming' (i.e., the pooling of lands and other resources by families of cultivators) without necessarily also assuming concomitant mechanization of the farming activities of the 'joint' producers. And *vice versa*, of course. I feel that Mr. Singh really wants to say that he is against large-scale mechanization in Indian agriculture regardless of what guise it comes under because it will displace villagers faster than present rates of industrialization can absorb them elsewhere (an undoubtedly accurate observation). On the other hand, he really seems to oppose collectivisation of agriculture, regardless of whether it is associated with mechanization, on somewhat different grounds. Namely, he feels it will lead to excessive regimentation of the peasantry, destruction of the peasant's deep affection for and devotion to the soil and of his pride of ownership (with a resulting decline in his productivity, as, Mr. Singh asserts, has happened in both Russia and Communist China), and the creation of a new landlord class masquerading behind the legal fiction of agricultural 'co-operatives'. In short, Mr. Singh is anti-collectives because he is anti-regimentation and a great believer in the innate capacities of the Indian peasant to improve his agricultural methods (with Government's help, of course) within the framework of his ancient and tried social institutions (viz., the village community and the joint-family). At the same time, he is anti-large-scale-mechanization (but not against improvement of the peasantry's technology where it does not destroy his rural pattern of life, however) because he feels it is economically unrealistic under Indian land-labour relationships and will lead, consequently, to the ruin rather than the apotheosis of Indian agriculture.

Quotations readily illustrate the nature of Mr. Charan Singh's feelings concerning mechanization and 'joint-farming' respectively, and thereby reveal why he should avoid blurring the distinction

himself. Regarding the desirability of small-scale farming units, he says :

"A system of agriculture based on small enterprise, where the worker himself is the owner of the land under his plough, will foster democracy. For, it creates a population of independent outlook and action in the social and political fields. It is true that the peasants have to earn their living the hard way.... They may be conservative, but will not be reactionary ; they may be in favour of a private economy, but they are not exploiters, either. The peasant is an incorrigible individualist.... That is why the peasant class everywhere is the only class which is really democratic without mental reservations. The system of family-size farms ensures stability because the operator or the peasant has a stake in his farm and would lose by instability" (p. 104).

Then, in connection with mechanization, he says :

"It is true that mechanisation of agriculture will lead to creation of certain secondary and tertiary industries in which some of the displaced agricultural labour will be able to find employment. But in a country where most of the rural areas are over-populated, where there is already a pressing problem of agricultural labour even on the basis of the existing technique of agriculture, where the joint family system contains so much hidden unemployment and underemployment, expanding industry's demand for labour, for many years to come, is likely to be covered by the existing idle hands, there is no economic justification in creating a supplementary labour supply through the mechanisation of agriculture" (p. 82).

Space does not permit a discussion of all of Mr. Singh's lengthy arguments in behalf of his point of view. But the reviewer feels obliged to assure the reader that, whether he agrees or disagrees with the author's conclusions, he will find it an enlightening conjunction of social scientifically derived generalization and the politician's compelling concern with practical issues of policy.

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Harold A. Gould

TRADITIONAL INDIA : STRUCTURE AND CHANGE. EDITED BY MILTON SINGER. PHILADELPHIA : AMERICAN FOLKLORE SOCIETY, 1959. PAGES : 332. PRICE : NOT QUOTED.

This book is a meaty compendium of information on the past and present of the Indic Civilization handled in a framework of nascent but promising anthropological theory and marking a new signpost in the direction of civilizational studies by anthropologists. We owe a debt of gratitude to the late Prof. Redfield for the thought-provoking and intellectually stimulating leads suggested by him in such studies and it is heartening to find his co-thinkers

at the Chicago University carrying on the tradition under the inspired leadership of Milton Singer. Compared with such earlier publications on Indian Civilization as *Village India* (ed. McKim Marriott) and *India's Villages*. (ed. M. N. Srinivas) the present volume stands out for its breadth of vision, richness of content and a remarkable spatio-temporal sweep, typical of contemporary American anthropology. The editor deserves to be congratulated for so eclectic and thoughtful a collaboration.

Since the several papers in this volume are unified by a common theory and one methodology, the editor is concerned with a long preface in explication of the various concepts and methods of work. Civilization is defined as "structure of tradition" and for the comprehension of this structure the complementary operational concepts of 'social organization of tradition' and 'cultural performances' and 'cultural media' are used. These concepts refer to the 'social' and 'cultural' structure of tradition respectively. The substitution of 'organization' for structure is a deliberate modification in acceptance of Firth's more dynamic view of "the arrangement of roles and statuses in a society". It is, as Redfield puts it for the structure of cultural tradition, "the way in which elements of action are put together in any particular case of transmission of tradition". Cultural structure is studied as composed of "cultural performances" and "cultural media". Since this book is devoted not only to the structure of traditional India but also to its change, Singer outlines the processes and agencies of this change.

In view of the analytical framework designed for a synchronic study of civilization and the study of change which is the direct outcome of recent acculturation, the title "Traditional India : Structure and Change" is something of a misnomer. The problems are not posed in a way that would lead to the raising of questions about the historical antiquity or the present or erstwhile (now changed) tradition or about the historical base-line for the evaluation of changes in this tradition. Despite its naivety a title like "Indian civilization—Past and Present" would have corresponded closer to the actual undertaking.

The volume truly comes into its own only after the first part which is vaguely termed as 'The Social Organization of Tradition', a concept originally used by Redfield for the systematization of his theoretical anchor-points in thinking about the social mechanism of cultural transmission in a civilization. The particular ethnographic studies grouped under this head go wide off the mark, not adhering to the line of enquiry suggested by this concept. All except one (that by Srinivas) are made by non-anthropologists and the juxtaposition of Sanskrit scholars and historians with anthropologists results in a 'scatter' which takes away substantially from the integration of this section.

The section on Cultural Performances and Cultural Media is well balanced ; the several papers exemplify and particularize the theoretical approach adequately. The selection of the themes is eclectic and provides a fairly representative sample of the variety of data to be reckoned in the pursuit ; it ranges from the descrip-

tion of Ram Lila to the analysis of Sanskrit fiction for the concept of the traditional Indian hero and of Toda poetry to understand the significance of oral tradition in cultural transmission, and further on, to the outlining of this process through religious instruction in South India. The several contributors are authorities in the subjects assigned to each and the brevity and precision of papers in this section is a direct outcome of this fact.

Change-studies have gained currency in present day anthropology and the observation of change in traditional India is one of the main concerns of this volume ; it is one of the copula in the explanatory sub-title of the book. Change in a primary civilization may emanate through a process of orthogenesis ; it is a more 'built-in' type of change, which can be epitomized in terms of a few repetitive processes characteristic of a particular civilization—the result of an interaction between the little and great traditions. This is the long-range historico-processual view of change. Then, there is change understood as acculturation. Happily, the editor has incorporated studies exemplifying both these type of changes which are relevant to an understanding of the Indic civilization. The paper by Orans on 'A Tribal People in an Industrial Setting' and Cohn's observations on the changing traditions of the Chamars of Madhopur are in the nature of acculturation studies at the tribal and rural fronts, respectively. The papers by Singer and Sinha, on the other hand, provide illustrations, in two different ways, of the possible application of Redfield's concepts to India conditions—examples of earnest discipleship. Bose views the institution of caste in Bengal from his characteristic vantage point of economy tempered with a middle-range view of history. A word needs be said, especially, about Surjit Sinha's paper aptly (cumbrously ?) entitled, "Tribal Cultures of Peninsular India as Dimension of Little Tradition in the Study of Indian civilization : A Preliminary Statement". Such a venture is symptomatic of a long-felt need of systematizing our ethnographic knowledge of tribal India in the framework of the entire Indic civilization. It is a synoptic view and it is holistic. The terms of reference with regard to synchronic-diachronic approaches are clearly stated. His views suggest a refreshing and theoretically more seminal use of the narratives by ethnographers of the recent past such as Risley, Hutton and Mills. And if this paper has a sweep that looks ambitious, the paper is "preliminary", and like all preliminary statements, all too open to amendments.

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Ravindra Jain

THAKURS OF THE SAHYADRI BY L. N. CHAPEKAR, CALCUTTA :
OXFORD UNIVERSITY PRESS, 1960. PAGES : X + 227. PRICE :
Rs. 22.50.

This book is about the Thakur who are a hill-tribe occupying the Western parts of Maharashtra in the districts of Thana, Nasik,

Ahmadnagar and Poona. Some of them live scattered in tiny hamlets in the countryside, and a few thousand have settled down in urban centres like Bombay, Poona, Igatpuri and Nasik. According to legends, the Thakur were once Rajputs, who gave up their martial life for fear of the Muslims by whom they were defeated, and who have ever since been living a jungle life like a tribal folk. The rural Thakur are cultivators of land and they gather food supplies from the jungle around. Living in close contact with the rural Hindus of Maharashtra, the Thakur have adopted many Hindu customs and practices and one of their two endogamous sections is served by Brahmin priests.

It is a descriptive monograph with twelve Chapters and a detailed glossary and index, containing detailed ethnographic data on various aspects of the social life of the Thakur. With the exception of the two chapters on economic life and family life, the rest are well done and contain valuable material.

Something need to be said about the arrangement of the chapters in the monograph. Reading the book, one gets the feeling that the chapters on family and social life should have come first for there is a good deal of material in them which has been referred to and taken for granted in the earlier chapters on birth, marriage and death. The chapter on economic life could well have given more detailed and quantitative data, and the chapter on family lacks depth.

In the text, certain things have been left unexplained. For example on page 24, we are told that "fruit trees are often owned by individuals, though not necessarily by the person who owns the land on which the trees grow". We are not told about the criteria of ownership in such cases. On page 63, mention is made of Brahmin as well as Muhar priests, but no clarification is made about their respective role. Nowhere are we told about the age at which Thakurs marry. On page 44, he writes, "their phraseology and practice in connection with menses are almost identical with those current among farmers in the plains". In the following para, he writes that "Women in menses can bring water from the well for their personal use... wash their clothes and bathe twice a day". Are these practices, one wonders, prevalent among farmers in the plains? On page 88, we read, "the idols are first bathed and red lead is applied to those of them to whom it is customary". It is not explained to which gods of the Thakurs it is customary to offer red lead. The following paragraph contains two statements. One is, "worship conforms to Hindu custom. It is the more interesting for the lack of any animal sacrifice". The other is, "invariably, when the *bhagat* prescribes the installation of deities or enjoins fresh attention to existing idols, the sacrifice of a cock or a goat forms an element in the ritual". No elaborate comment is required to show that these two are contradictory.

The book is descriptive and many of the descriptions are good, but some descriptions are weak and at times sketchy. One is left with the feeling after going through the book that though one knows how these Thakur live and work, one does not know so well how they think and feel.

The printing and get-up of the book are neat and illustrations are good.

Department of Anthropology, K. S. Mathur

Lucknow University.

THE GRASIAS BY P. C. DAVE. DELHI : BHARATIYA ADIMJATI SEVAK SANGH, 1960. PAGES : xii + 134. PRICE : RS. 7.50.

Books on the cultural life of Indian tribes are always welcome in the present state of our knowledge about Indian ethnography. We have so few descriptive accounts to go by for formulating our theories or for planning rehabilitation.

This, however, should not deter us from applauding a well-written book and criticising a poor document, and we are afraid the present book belongs to the later category. Apart from the fact that the author is an Assistant Commissioner for Scheduled Castes and Scheduled Tribes in charge of the Bombay region and thus has had a few years experience of working among the backward people of that area, he does not appear to have any professional competence to write a book of this nature. The information on which this is based is probably very accurate and reliable (though the reliability or otherwise of data collected by Government officials is well known to be repeated here !), but it seems to be singularly dull and malarranged.

The book contains 21 chapters, all too brief and rather sketchy. The chapter on Social Organization runs into 11 pages, of which one page is devoted to kinship, one to etiquette and greeting, one third to joint family, one to position of women, and so on. Not even the data is properly presented, nothing to speak of analysis and conclusions.

The author alone is not to be blamed for this patchwork. The publishers should have edited the book. If they cannot do it themselves, they should have sought advice from professionals. We must record our feeling that apathy towards and even dislike of professional social scientists, by the administrators of our country is largely responsible for this state of affairs.

We do not wish to discourage the author. He has done as good a job as an educated but untrained man could do. His is an honest effort. The fact that this book lacks in depth is possibly not his fault.

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A BIBLIOGRAPHY OF INDOLOGY VOL. I, INDIAN ANTHROPOLOGY. CMPILED BY J. M. KANTIKAR. EDITED, REVISED AND ENLARGED BY D. L. BANERJI AND A. K. OHDEDAR. CALCUTTA : NATIONAL LIBRARY, 1960. PAGES : xi + 290. PRICE : Rs. 5.00.

This 290 page list with 2067 entries on Indian Anthropology will prove to be a useful reference book for students and professional anthropologists. The compiler and editors have done a good job and the National Library deserve to be congratulated for this achievement. What is now needed is periodical revision of this list and its reissue from time to time to make it available to as many persons as possible.

The arrangement of the entries is quite good, but the editors could have done away with review snippets on some books. Even though these have been given in small print, the total space they occupy is considerable, the saving of which would mean a lot to the bulk of the book. The serial numbers of entries should have been in bolder type to catch the readers eye easily.

In a list of this nature, some entries are bound to be missed.

Department of Anthropology,
Lucknow University.

K. S. Mathur



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